– Index –

SOVIET PHYSICS – SOLID STATE

Volume 1, 1959

SOVIET PHYSICS – SOLID STATE: AUTHOR INDEX

(Russian original, Volume 1, 1959, of the journal Fizika Tverdogo Tela)

Abdullaev, G. B., M. G. Aliev and I. Kh. Geller. The Influence of Impurities on the Strong-Field Effect in Selenium Rectifiers-1527

Abdullaev, G. B., see Aliev, M. I.-1185

Abdullaev, G. B., see Kuliev, A. A.-545

Abkevich, L. I. An Energy Barrier Between Slow Surface Traps and the Bulk of Germanium and Silicon -1532

Abkevich, L. I., see Kosman, M. S.-341

Abrikosov, N. Kh., see Dugkin, L. D.-126

Abroyan, I. A. Oxide Cathode Emission Under Positive-Ion Bombardment-1699

Aditovich, É. I. Conductance and the Voltage Transmission Coefficient of a Semiconductor Diode in the Transient State-1019

Agranovskaya, A. I., see Smolenskii, G. A.-147

Agranovskaya, A. I., see Smolenskii, G. A.-149

Agranovskaya, A. I., see Smolenskii, G. A.-150

Agranovskaya, A. I., see Smolenskii, G. A.-400

Agranovskaya, A. I., see Smolenskii, G. A.-907

Agranovskaya, A. I., see Smolenskii, G. A.-909

Agranovskaya, A. I., see Smolenskii, G. A.-1429

Agranovskaya, A. I., see Smolenskii, G. A.-1438

Airapetyants, S. V. and M. S. Bresler. Measurement of the Anisotropy of Electrical Conductivity of Semiconductors by the Four-Probe Method-134

Akishin, A. I. and S. S. Vasil'ev. Emission of Secondary Electrons Under the Action of Lithium, Boron, and Nitrogen Ions with an Energy up to 10 Mev-755

Akishin, P. A., see Panchenkov, G. M.-839

Alad'ev, A. T. Longevity of Technical Dielectrics Working in High-Frequency Fields-854

Aleksandrov, L. A., see Bogoroditskii, N. P.-313

Aleksandrov, V. V., V. I. Pruzhinina, A. I. Rekov, T. S. Tarakanova and E. A. Teplov. Certain Electrical Properties of Boro-Silico-Carbides-1450

Alekseeva, V. G. and Eliseev, P. G. The Effect of Bismuth on the Density of Dislocations in Monocrystals of Germanium-1195

Alekseeva, V. G., L. V. Karpova and S. G. Kalashnikov. The Dependence of the Lifetime of Electrons and Holes in Germanium on Their Concentrations-475

Alferov, Zh. I., and É. V. Silina. Influence of the State of the Surface on the Breakdown Voltage of Alloy-Type Silicon Diodes-1719

Alferov, Zh. I. and E. A. Yarv. "Breakdown" of Alloy-Type Silicon Diodes in the Transmission Direction-1721

Aliev, M. G., see Abdullaev, G. B.-1527

Aliev, M. I. and G. B. Abdullaev. The Effect of Halogen Impurities on the Thermal Conductivity and Diffusion in Selenium-1185

Aliev, N. A. and N. I. Ibragimov. The Effect of Tin and Bismuth Impurities on the Thermal Conductivity of Selenium-1525

Almazov, A. B. Calculation of the Frequency-Distribution Function for Atomic Vibrations in the Crystal Lattice-1690

Ansel'm, A. I. and I. G. Lang. Theory of Two-Phonon Scattering of Conductivity Electrons in Atomic Crystals-621

Appen, A. A. and Kuan Pu-hsi. Electrical Properties of Alumosilicate, Borosilicate, and Alumoborosilicate Glasses-1400

Ariya, S. M. and N. I. Bogdanova. Electrical Conductivity of Certain Titanium and Vanadium Oxides-936

Arkad'eva, E. N. and S. M. Ryvkin. Investigation of "Adhesion Levels" in Polycrystalline Sb_2S_3 and Se Monocrystals by the Method of Thermally Activated Currents-1264

Arkad'eva, E. N. and S. M. Ryvkin. A Study of the Trapping Levels in Sb_2Se_3 Using Thermally Stimulated Current-1338

Baikov, Yu. M., see Konstantinov, B. P.-881

Barsukov, Yu. K. Transient Blocking Processes in Planar Semiconductor Diodes for High Currents-544

Barsukov, Yu. K. Theory of the Impulse Method of Voltage Separation on a Semiconductor Diode-806

Barsukov, Yu. K. An Investigation of p-n Junction at High Current Densities-1518

Bashshaliev, A. A. On the Influence of Halogens on the Thermoconductivity of Selenium-311

Batanov, G. M. and N. N. Petrov. Emission of Electrons from Glass by Helium and Argon Ions-1701

Bazhenov, N. M., M. I. Bykov, L. A. Volkova and M. V. Vol'kenshtein. The Photoelastic Effect in Polymethylmethacrylate, Polybutylmethacrylate and Polyvinylacetate-1079

Bazhenov, N. M., see Bolotina, I. A.-439

Belogurov, V. N., see Lepeshinskaya, V. N.-1656

Berlaga, R. Ya., F. T. Novik and L. P. Strakhov. Preparation of Lead Sulfide Photoresistances by Chemical Deposition-911

Bessonov, M. I. and E. V. Kuvshinskii. Cracks in Transparent Plastics – Their Growth and Structure-1321

Bir, L. G. The Effect of Surface Recombination on the Photoconductivity of Semiconductors-62

Bir, G. L., see Pikus, G. E.-136

Bir, G. L., see Pikus, G. E.-1502
Bir, G. L., see Pikus, G. E.-1675
Blum, A. L. Thermoelectric Properties of Gallium Antimonide (GaSb)-696
Blum, A. L. and G. P. Ryabtsova. The Thermoelectric Properties of InSb and GaSb Compounds during Melting and in the Liquid State-692
Bogdanova, N. L., see Ariya, S. M.-936
Bogdanovskii, G. A. Electron Microscope Investigation of Electrical Contacts-1171
Bogomolov, V. N. Mechanical Modulators of a Magnetic Field on the Possibilities of Measuring Small Hall Mobilities-750
Bogomolov, V. N. and V. K. Sirotkin. A Power Directional Relay Using the Hall Effect-1662
Bogoroditskii, N. P., N. M. Reinov and L. A. Aleksandrov. On the Dependence on Temperature of the Temperature Coefficient of Dielectric Permeability of $CaZrO_3$ at the Temperature of Liquid Helium -313
Boiko, I. I. The Theory of the Mobility of Electrons in Semiconductors-518
Boiko, I. V. On the Theory of Field Effect-11
Bolotina, L. A., N. M. Bazhenov, M. V. Vol'kenshtein and Zh. S. Sogomonyants. The Influence of Vitrification of Polymers on Their Optical Activity -439
Bol'shov, V. G. and V. V. Zarubin. Secondary Electron Emission from In and Pb in the Solid and the Liquid States-416
Bol'shov, V. G., L. N. Dobretsov, A. A. Zharinov, T. V. Krachino and M. K. Repnikova. Emission Properties of Germanium Treated in Cesium Vapor-1618
Boltaks, B. I. and Ya. A. Gutorov. Some Results on the Diffusion of Impurities and Their Effect on the Electrical Properties of Gallium Antimonide-930
Bonch-Bruevich, V. L. On the Spin Mechanism of Recombination of Current Carriers in Ferromagnetic Semiconductors-166
Bonch-Bruevich, V. L. A More Precise Theory of Plasma Recombination-984
Bonch-Bruevich, V. L. Impurity Band Theory-1110
Bonch-Bruevich, V. L. and Sh. M. Kogan. The Theory of Electron Plasma in Semiconductors-1118
Borshchevskii, A. S. and D. N. Tret'yakov. Application of Vibrational Mixing to the Synthesis of Semiconductor Materials-1360
Bozhokina, L. A., see Davidenkov, N. N.-1209
Brainin, E. L., see Davidenkov, N. N.-1357
Bresler, M. S., see Airapetyants, S. V.-134
Britsyn, K. L., see Vavilov, V. S.-1489
Bronshtein, I. M. and R. B. Segal'. Secondary Electron Emission from Tellurium-1036
Bronshtein, I. M. and R. B. Segal'. An Investigation of Electron Reflection from Certain Metals-1142
Bronshtein, I. M. and R. B. Segal'. Inelastic Scattering of Electrons and Secondary-Electron Emission in Certain Metals. I-1365
Bronshtein, I. M. and R. B. Segal'. Inelastic Scattering of Electrons and Secondary-Electron Emission in Certain Metals. II - 1375
Bryukhanova, L. S., L. A. Kochanova and V. I. Likhtman, The Principles of the Brittle Fracture of Single Crystals of Zinc-1329
Buimistrov, V. M. and M. E. Deigen. The Theory of Impurity Absorption of Light in Covalent Crystals-1341
Bulyginskii, D. G. and E. E. Sibir. Regarding the Nature of the Surface Film of the L-Cathode-421
Burdiyan, I. I. Additional Evidence Concerning the Solid Solutions in the AlSb-GaSb System-1246
Burdiyan, I. I. and B. T. Kolomiets. A Study of the Conductivity and the Hall Effect in Solid Solutions of the AlSb-GaSb System-1067
Burshtein, L. L., see Maikhailov, G. P.-574
Burtsev, V. A., see Kanicheva, I. R.-1146
Bykov, M. I., see Bazhenov, N. M.-1079

Chaikovskii, E. F., see Pines, B. Ya.-864
Cherepanov, V. I. The Theory of Optical Properties of Electron Semiconductors in the Infrared Region of the Spectrum-947
Chemaya, N. S., see Lyashenko, V. I.-799
Chemaya, N. S., see Lyashenko, V. I.-921
Chernyi, B. K., see Sinyakov, E. V.-315
Chetverikov, N. I. Restoration of the Parameters of Germanium Subjected to Thermal Treatment by Annealing in Vapors of Antimony and Arsenic -498
Chevychelov, A. D. The Current Voltage Characteristic of an n-p Junction with Due Regard to the Generation and Recombination of Carriers in the Space Charge Layer-1102
Chih-ch'ao Lien and D. N. Nasledov. Electrical Properties of p-Type InSb at Low Temperatures-514
Chih-chien Li. Dependence of the Induced Conductivity on the Energy of Electrons in Films of Cadmium n Sulfide and Selenide During Bombardment with Slow Electrons-70
Chih-chien, Li. Investigation of Intercrystalline Energy Barriers in Thin Films of Cadmium Sulfide by Irradiation of the Films with Low-Energy Electrons-75

Daryagin, B. V. and M. S. Metsik. Role of Electrical Forces in the Process of Splitting of Mica along Cleavage Planes-1393
Davidenkov, N. N. and L. A. Bozhokina. Regarding the

Mechanical Criterion of Cold Brittleness-1209
Davidenkov, N. N. and E. I. Brainin. Nature of the Flow Region in Metals-1357
Davidenkov, N. N. and I. S. Efimova. Influence of the Surface Condition on Cold Brittleness-1389
Deigen, M. E., see Buimistrov, V. M.-1341
Deryabina, V. L., see Goryunova, N. A.-460
Devyatkova, E. D., B. Ya. Moizhes and I. A. Smirnov. Thermal Conductivity of Tellurium Containing Different Concentrations of Additional Elements in the Temperature Range-80-480°K-555
Dobretsov, L. N., see Bol'shov, V. G.-1618
Dobrovol'skii, V. N. Diffusion and Recombination during Measurements of the Drift Mobility-655
Dorin, V. A., B. I. Kuznetsov and D. N. Nasledov. Investigation of Growth of an n-Type Semiconductor Layer at the Contact Between Cadmium and Selenium-669
Dudkin, L. D. and N. Kh. Abrikosov. On the Doping of the Semiconductor Compound $CoSb_3$-126
Dudkin, L. D., see Zobrina, B. N.-1668
Dunaeva, T. N., see Voitenko, R. M.-264
D'yakonova, T. S., see Likhter, A. L.-86
Efimova, B. A., T. S. Stavitskaya, L. S. Stil'bans, and L. M. Sysoeva. Carrier Scattering Mechanism in Some Solid Solutions Based on Lead and Bismuth Tellurides-1217
Efimova, B. A., see Vinogradova, M. N.-1224
Efimova, I. S., see Davidenkov, N. N.-1389
Egorov, V. D. The Recombination of Charge Carriers in Semiconductors for a Great Concentration of Traps-753
Eliseev, P. G., see Alekseeva, V. G.-1195
Emelyanenko, O. V. and D. N. Nasledov. The Nernst-Ettingshausen Effect in Gallium Arsenide-902
Emel'yanenko, O. V., N. V. Zotova and D. N. Nasledov. Magnetothermal Nernst-Ettingshausen Effects in Indium Arsenide-1711
Erokhina, N. A., see Galavanov, V. V.-1096

Fainshtein, S. M., see Trakhtenberg, A. D.-335
Favstov, Yu. K. Influence of Heat-Treatment and Cold-Working on Internal Friction in Metals-448
Fedorova, N. N., see Goryunova, N. A.-307
Fedorus, G. A., see Sal'kov, E. A.-523
Feltin'sh, L. A., see Nasledov, D. N.-510
Fiks, V. B. On the Mechanism of the Mobility of Ions in Metals-14
Fiks, V. B. Entrainment of Ions by Electrons in Semiconductors-1212
Fiks, V. B. and G. E. Pikus. Electrokinetic Effects and the Viscosity of Electrons in Liquid Metals, II. -1049
Fiks, V. B., see Pikus, G. E.-972
Firsov, Yu. A. Cyclotron Resonance in Semiconductors with Complex Equipotential Surfaces-42
Firsov, Yu. A. Remark on the Article "Cyclotron Resonance in Semiconductors with Complex Equipotential Surfaces"-474
Fisher, I. Z. On the Impurity Conduction in Liquid and Amorphous Semiconductors-171
Fortunatova, N. N., see Glinchuk, K. D.-1234
Fu-shi Kuan, see Appen, A. A.-1400
Frantsevich, I. N., D. F. Kalinovich, I. I. Kovenskii and M. D. Smolin. Some Quantitative Relationships of the Process of the Donor-Acceptor Reaction in Metal Alloys-58
Fridman, S. A., see Vavilov, V. S.-748
Fridrikhov, S. A. and A. R. Shul'man. An Investigation of the Secondary Electron Emission by Certain Dielectrics at Low Primary Electron Energies-1153
Fridrikhov, S. A. and A. R. Shul'man. An Investigation of the Secondary Electron Emission by Alkali-Halide Monocrystals at Low Primary Electron Energies-1160

Galavanov, V. V. Displacement of Atoms in a Solid by the Action of γ-Rays-390
Galavanov, V. V. and N. A. Erokhina. Preparation of a Photovoltaic Cell from InSb with an Alloyed n-p Junction-1096
Galavanov, V. V., see Vinogradova, K. L.-364
Galavanov, V. V., see Volokobinskaya, N. L.-687
Galkin, G. N., see Malovetskaya, V. M.-1099
Galkin, G. V., see Vavilov, V. S.-748
Galkina, T. I. The Application of the Photomagnetoelectric Effect to the Measurement of Surface Recombination Velocity-194
Ganichev, D. A. and K. G. Umkin. The Possibility of Electron Total Energy Distribution Analysis in a Quasi-Spherical Condenser-590
Garber, R. I. Mechanical Properties of Single Twin Interlayers-738
Garber, R. I., I. A. Gindin and Ya. D. Stardubov. Thermal Hardening of Twin Interlayers in Iron -1649
Gashimzade, F. M., see Gubanov, A. I.-1294
Gashka, I. I. and Yu. K. Pozhela. Measurement of the Electrical Parameters of a Semiconductor by uhf-Techniques-1311
Gavrilyuk, V. M., see Vedula, Yu. S.-1569
Gelikhman, D. S., Romankevich, V. N. and V. G. Sidyakin. The Electrical Properties of Polycrystalline Selenium with Halogen Impurities (Br_2, Cl_2, I_2)-196
Geller, I. Kh., see Abdullaev, G. B.-1527
Gindin, I. A. and Ya. D. Stardubov. Low Temperature Plastic Failure of Coarse-Grained Iron -1642
Gindin, I. A., see Garber, R. I.-1649

Gisina, F. A. Relaxation Characteristics of Semiconductor Photoresistors and Photoelements-1314
Glazunov, P. A., see Smirnov, L. S.-1262
Glinchuk, K. D., E. G. Miselyuk and N. N. Fortunatova, A Study of the State of Silver and Gold Local Level in Germanium-1234
Golikova, E. V., see Mazurin, O. V.-572
Golikova, O. A., see Vinogradova, M. N.-1224
Gomoyunova, M. V. Secondary Electron Emission from NaCl Films-283
Gomoyunova, M. V. Electron Reflection and Secondary Electron Emission of NaCl Films-294
Gordeev, G. V. Impact Ionization in an n-p Junction-772
Gorodetskii, A. F., V. G. Mel'nik and L. G. Mel'nik, A Method for Making an Ohmic Contact with Silicon -153
Goryunova, N. A. and N. N. Fedorova, On Solid Solutions in the ZnSe-GaAs System-307
Goryunova, N. A., S. I. Radautsan and V. L. Deryabina, Homogenization of Alloys of the InAs-In_2Se_3 System by Annealing Under Pressure-460
Goryunova, N. A., S. I. Radautsan and G. A. Klosse, A New Semiconducting Compound in the In-Sb-Te System-1702
Grigorescu, L. and M. Nakhman, The Reflective Power of Cu-Sn Alloys Obtained by Simultaneous Condensation of Component Vapors on a Base Layer -732
Grinberg, A. A., Calculation of Transient Process in Transistors-29
Grinberg, A. A., see Ryvkin, S. M.-1258
Gross, E. F. and B. V. Novikov, The Fine Structure of Photoconductivity Spectral Response Curves for Cadmium Sulfide Crystals-321
Gross, E. F. and B. V. Novikov, The Effect of Mechanical Treatment of the Surface on the Fine Structure of Photoconductivity Response in Cadmium Sulfide Crystals-1723
Gross, E. F. and I. Pastmyak, The Fine Structure of the Spectral Photosensitivity Curve of Cu_2O Crystals -143
Gross, E. F. and I. Pastmyak, Formation of Polarons in Crystals with the Absorption of Light-466
Gross, E. F. and I. Pastmyak, Influence of Surface Treatment on the Structure of the Curve of Spectral Distribution of Photoconductivity in Crystals of Cuprous Oxide-758
Gross, E. F. and I. Pastmyak, Optical Spectrum of Polaron Formation in Cuprous Oxide Crystals-891
Gubanov, A. I. Approximate Wave Functions for Valence Electrons of Certain Atoms-182
Gubanov, A. I. and F. M. Gashimzade, Investigation of the Symmetry of Electron Energy Zones in $CdIn_2Se$-Type Crystals-1294
Gubanov, A. I. and A. A. Nran'yan, Application of the Equivalent Orbital Method to the Study of Band Structure in $A^{III}B^{V}$ Compounds-958
Gubler, I. E., see Gurevich, A. G-1693
Gubler, I. E., see Gurevich, A. G.-1706
Gul'tyaev, P. V. and A. V. Petrov, The Specific Heats of a Number of Semiconductors-330
Gulyaev, Yu. V. The Problem of the Scattering of Charge Carriers at Impurity Centers-381
Gurevich, A. G. and I. E. Gubler, Ferromagnetic-Resonance in Yttrium Ferrite Single Crystals -1693
Gurevich, A. G., I. E. Gubler and A. P. Safant'evskii, Ultrahigh Frequency Properties of Yttrium and Lutecium Iron Garnets - 1706
Gurevich, L. É. and Z. I. Uritskii, The Theory of Longwave Absorption by Crystals-1188
Gurevich, V. L. The Theory of Thermal Conductivity of Dielectrics-1351
Guro, G. M. Characteristic Times of Steady-State Electron Processes in Semiconductors-1
Gusa, V., I. Krzhizh and I. Ladnar, Zone Melting of Silicon with an Electron Beam-261
Guseva, M. I. The Sputtering Effect of Positive Ions with Energies up to 25 kev in a Small Electromagnetic Separator-1410
Gutorov, Yu. A., see Boltaks, V. I.-930

Ibragimov, N. I., see Aliev, N. A.-1525
Ioffe, A. F. Two Mechanisms for the Motion of Free Charges-139
Ioffe, A. F. Two Mechanisms for the Conduction of Heat-141
Ioffe, A. F. Values of the Effective Mass and the Mobility for Thermoelements-1487
Iordanishvili, E. K. The Efficiency of Refrigeration Thermocouples-595
Iskra, V. D., see Pilat, I. M.-354
Isupov, V. A. Ferroelectric Properties of Lead Metatantalate-216
Isupov, V. A. and V. I. Kosyakov, Dielectric Polarization and Piezoelectric Properties of Certain Ferroelectric Solid Solutions Based on Sodium Niobate-849
Isupov, V. A., see Smolenskii, G. A.-149
Isupov, V. A., see Smolenskii, G. A.-150
Isupov, V. A., see Smolenskii, G. A.-400
Isupov, V. A., see Smolenskii, G. A.-907
Isupov, V. A., see Smolenskii, G. A.-909
Isupov, V. A., see Smolenskii, G. A.-1438
Ivanov, G. A. Electrical Properties of Bismuth Alloys. IV. On the Calculations of Electrical Properties of Binary Alloys of Bismuth-1461
Ivanov, Yu. L., see Ryvkin, S. M.-1258

Ivanov-Omskii, V. I. and B. T. Kolomiets. Certain Properties of the InSb-GaSb Alloy-512
Ivanov-Omskii, V. I. and B. T. Kolomiets. Equilibrium Solid Solutions in the InSb-GaSb System-834
Izhak, I. A., see Kolomoitsev, F. I.-1639
Izmailov, S. V. The Theory of Ion-Electron Emission from Metals. II-1415
Izmailov, S. V. The Theory of Secondary Electron Emission from Metals under the Action of Fast Neutral Atoms. III-1425

Kachlishvili, Z. S. Elastic Scattering of a Mott Exciton on an Na^+ Ion in the Born Approximation-1597
Kaganov, M. A., I. S. Lisker and I. G. Mushkin. On the Problem of Measuring Thermoelectric Properties of Semiconductors-905
Kalinin, O. M. Spectral Fluctuations in Complex Physical Systems-1299
Kalinovich, D. F., see Frantsevich, I. N.-58
Kalashnikov, S. G. and A. I. Morozov. The Temperature Dependence of the Coefficient of Electron Capture at the Central Level of Copper in Germanium-1182
Kalashnikov, S. G. and K. Konstantinesku. A Possible Method of Determining the Ratio of Capture Cross Sections of Recombination Centers in Semiconductors-1613
Kalashnikov, S. G. and K. P. Tissen. Recombination of Electrons and Holes at Nickel Atoms in Germanium -491
Kalashnikov, S. G. and K. P. Tissen. The Cross Section of Capture Electrons and Holes by Atoms of Nickel in Germanium-1604
Kalashnikov, S. G., see Alekseeva, V. G.-475
Kalashnikov, S. G., see Kurova, I. A.-1353
Kalashnikov, S. G., see Zhdanova, N. G.-481
Kanicheva, I. R. and V. A. Burtsev. Investigation of Transmission of 0.5-16 kev Electrons through Collodion and Gold Films-1146
Kaplunova, E. I. Many-Electron Examination of the Hole Zone in Diamond Type Crystals-157
Karpova, I. V., see Alekseeva, V. G.-475
Karpova, O. V. On an Absolute Method of Measurement of Dielectric Properties of a Solid Using a π-Shaped Resonator-220
Khapachev, A. G., see Zakharov, G. M.-756
Kharus, G. I., see Sokolov, A. V.-317
Kiosse, G. A., see Goryunova, N. A.-1702
Kirvalidze, I. D. and V. F. Zhukov. The Possibility of Creating Ohmic Contact with Silicon by Rubbing the Metal onto the Semiconductor Using Dry Friction-1446
Kitaigorodskii, M. M. Stability of Piezoelectric Effect in Compressed Barium Titanate-570
Kleshchevnikova, S. I., see Pokrovskii, Ya. E.-914
Klimin, A. I., see Zubenko, Yu. V-1691
Klinger, M. I. Some Properties of Relaxation Functions and Kinetic Coefficients-613
Klinger, M. I. A Statistical Theory of the Electrical Conductivity of Semiconductors. I.-782
Klinger, M. I. The Statistical Theory of Kinetic Phenomena. II-1122
Klinger, M. I. Concerning the Statistical Theory of Electrical Conductivity of Semiconductors. III-1269
Klyachkin, V. I. Contribution to the Theory of Ferro- and Antiferroelectrics-1716
Klyavin, O. V. and A. V. Stepanov. The Mechanical Properties of Solids, Particularly Metals, at Temperatures of 4.2°K and Below. II. The Fracture of Coarse Crystal Aluminum (99.996%) and of the High-Strength Aluminum Alloy B-95-873
Klyavin, O. V. and A. V. Stepanov. An Investigation of Mechanical Properties of Metals at the Liquid-Helium Temperature-1583
Kobelev, V. V. and I. I. Nadashkevich. Regarding the Arbitrary Reversal of the Magnetic Polarity of Mn-Mg and Ni-Zn Ferrites-1043
Kochanova, L. A., see Bryukhanova, I. S.-1329
Kogan, Sh. M., see Bonch-Bruevich, V. L.-1118
Koikov, S. N. and A. N. Tsikin. Basic Principles of Aging of Alundum Coatings-411
Koikov, S. N. and A. N. Tsikin. Solution of the Problem of Thermal Breakdown in Dielectrics for Nonsymmetrical Boundary Conditions-716
Kolchin, A. M., see Panchenkov, G. M.-839
Kolenko, E. A., see Votenko, R. M.-264
Kolomiets, B. T. and V. M. Lyubin. Properties and Structure of Ternary Semiconductor Systems Part VI. Electric and Photoelectric Properties of Films of the Sb_2Se_3 System-674
Kolomiets, B. T. and A. Kh. Zeinally. Photoconductivity of Sb_2Se_3-896
Kolomiets, B. T., V. M. Lyubin and D. V. Tarkhin. Conductivity and Photoconductivity of Antimony Triselenide-819
Kolomiets, B. T., see Burdiyan, I. L.-1067
Kolomiets, B. T., see Ivanov-Omskii, V. I.-512
Kolomiets, B. T., see Ivanov-Omskii, V. I.-834
Kolomoitsev, F. I. and I. A. Izhak. The Depolarization Charge of Barium Titanate and Its Connection with the Piezoelectric Effect-1639
Konovalenko, B. M., see Ryvkin, S. M.-1607
Konozenko, I. D., and V. I. Ust'yanov. Crystalline CdS Gamma- Radiation Receivers-81
Konstantinesku, K. Determination of the Ratio of the Electron and Hole Capture Cross Sections of Copper Atoms in Germanium-1616

Konstantinescu, K., see Kalashnikov, S. G.-1613
Konstantinov, B. P., Yu. M. Baikov and G. Ya. Ryskin. Flotation Method for Measuring the Compressibility Coefficients of Solids and Liquids-881
Kontorova, T. A. On the Question of Fusion of Ge and Si -1611
Kontsevoi, Yu. A. Determination of Capture Cross Sections in the Case of Recombination on Multicharged Centers-1177
Komfel'd, M. I. and D. N. Mirlin. Temperature Dependence of the Low-Frequency Fluctuations of Conductivity in Germanium-1709
Komfel'd, M. I. and L. S. Sochava. Conductivity Fluctuations in a Solid and a Liquid Antimony Sulfide System-1253
Komfel'd, M. I. and L. S. Sochava. Conductivity Fluctuation in Amorphous Semiconductors-1256
Korolyuk, S. L., see Samoilovich, A. G.-1454
Korovin, L. I. Calculation of the Index of Refraction Near the Fundamental Absorption Edge in Atomic Semiconductors-1202
Kosenko, V. E. Diffusion and Solubility of Cadmium in Germanium-1481
Kosman, M. S. and L. L. Abkevich. Long-Period Contact Potential and Conductivity Variations in Germanium Due to the Action of Light and of a Perpendicular Electric Field-341
Kosyakov, V. I., see Isupov, V. A.-849
Kovenskii, I. I., see Frantsevich, I. N.-58
Kozhevnikova, L. V., see Vasil'ev, D. M.-1207
Kozlovskaya, V. M. Mass-Spectrometric Determination of the Amount and Composition of Gases Adsorbed on the Surface of Germanium and Silicon Monocrystals-940
Kozyrev, P. T. Dependence of the Electrical Conductivity of Selenium on Pressure (for Pressures up to 30,000 atm), I.-94
Kozyrev, P. T. Deoxidized Selenium and the Dependence of Its Electrical Conductivity on Pressure, II.-102
Krachino, T. V., see Bol'shov, V. G.-1618
Krzhizh, L., see Gusa, V.-261
Ksendzov, Ya. M. and B. A. Rotenberg. The Effect of Pressure on the Electric Properties of Barium Titanate in Weak Fields-579
Kuchin, V. D. More Concerning the Temperature Dependence of the Electric Strength of Ionic Crystalline Dielectrics-406
Kudinov, E. K. The Energy Spectrum of Holes in Bi_2Te_3 -1696
Kudryavtsev, I. P., see Viglin, A. S.-229
Kudryavtsev, I. P., see Viglin, A. S.-234
Kuliev, A. A. Diffusion of Certain Impurities in Bi_2Se_3 and ZnSb-1076
Kuliev, A. A. and G. B. Abdullaev. An Investigation of the Diffusion of Zn and Se in Bi_2Se_3, BiSe and CdSb-545
Kurlina, E. V., see Sheftel', I. T.-263
Kurov, G. A. More on the Structure of Thin Layers Obtained on Evaporation of Antimonous Indium in a Vacuum-151
Kurova, I. A. and S. G. Kalashnikov. Electrical Conductivity of Germanium at Low Temperatures-1353
Kutasov, V. A., see Vinogradova, M. N.-1224
Kuvshinskii, E. V., see Bessonov, M. I.-1321
Kuznetsov, B. I., see Dorin, V. A.-669
Ladnar, L., see Gusa, V.-261
Lang, L. G., see Ansel'm, A. I.-621
Lange, T. I. and A. V. Stepanov. Phenomenon of Artificial Generation of Dislocations. VII. Study of Artificial Generation of Dislocations in Conditions of Circular Bending-606
Lange, V. N. and A. R. Regel'. Certain Anomalies in the Density and the Microhardness Functions of Te-Se and Te-S Alloys-504
Lange, V. N. and A. R. Regel'. Peculiarities of the Electrical Properties of Continuous Solid Solutions in the Te-Se and Te-S Systems-507
Leksina, I. E. and S. I. Novikova. Thermal Expansion of Fluoroplast (Ftoroplast IV) Between 190 and 325°C-453
Lepeshinskaya, V. N. and V. N. Belogurov. Change in the Work Function of Molybdenum on Deposition of Thin Sodium and Cesium Films -1656
Lifshits, I. M. and V. V. Slezov. Theory of Coalescence of Solid Solutions-1285
Likhter, A. I. Dependence of the Hall Effect on Pressure in p-Germanium of 50 ohm·cm Resistivity-815
Likhter, A. I. and T. S. D'yakonova. Measurement of the Dependence of the Hall Effect in n-Type Germanium on Pressure for Pressures up to 10,000 kg/cm^2-86
Likhtman, V. I., see Bryukhanova, L. S.-1329
Lindstrem, I. S., see Markov, M. N.-749
Lipnik, A. A. Disintegration of an Exciton by Phonons in Atomic Semiconductors-661
Lisker, I. S., see Kaganov, M. A.-905
Litovchenko, V. G. and V. I. Lyashenko. Investigation of "Past" Surface States of Germanium -1470
Livshits, L. D., see Ryabinin, Yu. N. Ryabinin-429
Lubchenko, A. F. Concerning the Relation Between the Polarization and the Magnetic Field Intensity in the Exciton Absorption Region-646

Lyashenko, V. I. and N. S. Chernaya. Mechanism of the Increasing Longtime Changes of the Field Effect -799

Lyashenko, V. I. and N. S. Chernaya. The Nature of Relaxation Processes in the Field Effect-921

Lyashenko, V. I., see Litovchenko, V. G.-1470

Lyubin, V. M., see Kolomiets, B. T.-674

Lyubin, V. M., see Kolomiets, B. T.-819

Maiskaya, K. A., see Mostovskii, A. A.-585

Makhov, A. F. The Universal Nature of Electron Penetration into Solids-1600

Maleev, P. I., see Vitovskii, N. A.-901

Malkovich, R. Sh. On the Calculation of the Diffusion Coefficient in Solids-548

Malovetskaya, V. M., V. S. Vavilov and G. N. Galkin. The Reflection Coefficient of Antireflection-Coated Surfaces of Silicon Photocells-1099

Marikhin, V. A., see Zhurkov, S. N.-1060

Marikhin, V. A., see Zhurkov, S. N.-1602

Markov, M. N. and I. S. Lindstrem. The Resistivity of Spray-Coated Bismuth-749

Mashovets, T. V., see Vitovskii, N. A.-1266

Mazurin, O. V., É. V. Golikova and N. V. Shtol'tser. Effect of Calcium Oxide on Electrical Conductivity of Glass Containing Two Alkali Oxides-572

Mednikov, A. K. Extraction of Nickel from Germanium -1704

Mel'nik, V. G., see Gorodetskii, A. F.-153

Men', A. N., see Orlov, A. N.-174

Metsik, M. S. Theory of Splitting of Mica Crystals-991

Metsik, M. S., see Daryagin, B. V.-1393

Mikhailov, G. P. and L. L. Burshtein. An Investigation of the Dielectric Polarization of Copolymers of Methylmethacrylate and Styrene-574

Mirlin, D. N., see Kornfel'd, M. I.-1709

Mironov, A. G. On the Theory of Photoconductivity and Photoelectromagnetic Effect when Trapping Levels Are Present - 471

Miselyuk, E. G., see Glinchuk, K. D.-1234

Mizetskaya, I. B., see Vitrikhovskii, N. I.-358

Mizetskaya, I. B., see Vitrikhovskii, N. I.-912

Mochan, I. V., Yu. N. Obraztsov and T. V. Smirnova. Investigation Concerning the Interaction of Holes in p-Germanium with Acoustic Branch Vibrations -1238

Mochan, I. V. and T. V. Smirnova. Concerning Methods of Measuring the Nernst Effect-1016

Moizhes, B. Ya. Elimination of Edge Effect during the Measurement of the Photomagnetic emf in Semiconductors-1135

Moizhes, B. Ya. The Threshold Frequency of a Drift Transistor Taking Into Account the Variation of the Drawing Field and the Mobility of Carriers in the Base-1198

Moizhes, B. Ya. Noncentral Forces in the Theory of Crystal Lattice Vibrations-1620

Moizhes, B. Ya. and Yu. I. Ravich. On the Possibility of Detection of Excitons in Germanium and Silicon-1139

Moizhes, B. Ya., see Devyatkova, E. D.-555

Morgulis, N. D. Variation of the Work Function of an Electron from a Metal under the Influence of an Adsorbed Layer of Molecules of Barium Oxide-1029

Morgulis, N. D., see Vedula, Yu. S.-1589

Morozov, A. I., see Kalashnikova, S. G.-1182

Morozov, A. I., see Zhdanova, N. G.-481

Mostovskii, A. A., O. B. Vorob'eva and K. A. Maiskaya. Bismuth-Silver-Cesium Photocathodes-585

Mushinskii, V. P. Semiconductor Properties of Aluminum Selenide-463

Mushkin, I. G., see Kaganov, M. A.-905

Myuller, R. L. On the Problem of Interconnection Between the Electroconductivity and the Ductility of Glasses-309

Nadashkevich, I. I., see Kobelev, V. V.-1043

Naer, V. A. An Experimental Investigation of a Thermoelectric Evaporation Apparatus-1092

Naer, V., see Vikhorev, G.-824

Nakhman, M., see Grigorescu, L.-732

Nasledov, D. N. and I. A. Feltin'sh. The Problem of Electrical Properties of Gallium Arsenoselenides-510

Nasledov, D. N. and S. V. Slobodchikov. Electrical Properties of n-Type AlSb-681

Nasledov, D. N. and Yu. S. Smetannikova. Photomagnetic Effect in Single Crystals of n-Type Indium Antimonide-501

Nasledov, D. N. and B. V. Tsarenkov. Spectral Characteristics of GaAs Photocells-1346

Nasledov, D. N. and L. M. Yashnkova. A Study of Selenium Rectifiers under Pulse Conditions -1087

Nasledov, D. N., see Lien Chih-ch'ao-514

Nasledov, D. N., see Dorin, V. A.-669

Nasledov, D. N., see Emelyanenko, O. V.-902

Nasledov, D. N., see Emel'yanenko, E. D. - 1711

Nasledov, D. N., see Vinogradova, K. L.-364

Nasledov, D. N., see Volokobinskaya, N. L.-687

Nasledov, D. N., see Zotova, N. V.-1544

Neizvestnyi, I. G., see Rzhanov, A. V.-1349

Nekrashevich, I. G. Photoelectric Properties of Semiconductors Rectifying Elements in X-Rays-532

Nikitin, E. N. Investigation of Semiconductor Properties in the Silicon-Manganese System-304

Nikitinskaya, T. L., see Zakharov, G. M.-756

Novik, F. T., see Berlaga, R. Ya.-911
Novikov, B. V., see Gross, E. F.-321
Novikov, B. V., see Gross, E. F.-1723
Novikov, S. R., see Ryvkin, S. M.-1258
Novikova, G. E. and O. N. Trapeznikova. Concerning a New Type of Crystal Structure of Gutta-Percha -1637
Novikova, S. I. and P. G. Strelkov. Thermal Expansion of Silicon at Low Temperatures-1687
Novikova, S. I., see Leksina, I. E.-453
Novototskii-Vlasov, Yu. F., see Rzhanov, A. V.-1349
Nran'yan, A. A., see Gubanov, A. I.-956

Obraztsov, Yu. N., see Mochan, I. V.-1238
Obukhov, A. A. Nonlinearity of Certain Ferroelectrics at High Frequencies-1580
Orlov, A. N. and A. N. Men'. The Statistical Theory of Bond Energy in Spinel-Type Crystals-174
Orlova, N. S. and V. M. Tuchkevich. Dependence of the Hall Constant on the Magnetic Field Intensity in Silicon-1491

Panchenko, V. V. Permittivity and Dielectric Losses of Alkali-Halide Crystals-1677
Panchenkov, G. M., A. M. Kolchin and P. A. Akishin. Mass-Spectrometric Study of the Thermionic Emission of Cesium from Different Emitters-839
Pastrynyak, I. Temperature Dependence of the Light-Absorption Coefficient in Cuprous Oxide Crystals in the Visible Region of the Spectrum-888
Pastmyak, I., see Gross, E. F.-143
Pastmyak, I., see Gross, E. F.-466
Pastmyak, I., see Gross, E. F.-891
Pastrnyak, I., see Gross, E. F.-758
Patskevich, V. M., see Vavilov, V. S.-1344
Petrov, A. V., see Gul'tyaev, P. V.-330
Petrov, N. N., see Batanov, G. M.-1701
Petrusevich, V. A. The Effect of Surface Treatment on the Spectral Photoconductivity Response of p-Type Silicon-1549
Pikus, G. E. and G. L. Bir. Effect of Deformation on the Energy Spectrum and the Electrical Properties of Imperfect Germanium and Silicon-136
Pikus, G. E. and G. L. Bir. Effect of Deformation on the Hole Energy Spectrum of Germanium and Silicon -1502
Pikus, G. E. and G. L. Bir. The Influence of Deformation on the Electric Properties of p-Germanium and Silicon-1675
Pikus, G. E. and V. B. Fiks. Electrokinetic Effects in Liquid Metals-972
Pikus, G. E., see Fiks, V. B.-1049
Pikus, G. E., see Zhuze, V. P.-1302
Pilat, L. M., V. D. Iskra and V. B. Shuman. Electrical Properties of the Intermetallic Compound CdSb with Indium Impurity-354
Pines, B. Ya. Increase in the Precision of Determining the Longevity of Stretched Bodies under Stress -238
Pines, B. Ya. The Problem of the Mechanism of Diffusion in Crystals of Chemical Compounds and the Kinetics of Reactive Diffusion-434
Pines, B. Ya. and E. F. Chaikovskii. An X-Ray Investigation of the Kinetics of Reactive Diffusion in the Al-Sb System-864
Pines, B. Ya. and A. F. Sirenko. Temperature Dependence of the Mechanical Strength and Life under Load of Metalloceramic Bodies-247
Pines, B. Ya. and L. V. Smushkov. X-Ray Investigation of Heterodiffusion in Cu-Ni Alloys-858
Plotnikov, A. F., see Vavilov, V. S.-894
Pokrovskii, Ya. E., S. I. Kleshchevnikova and E. I. Rumyantseva. Certain Improvements in the Technique of Preparation of Pure Silicon by Thermal Decomposition of Silane-914
Polovikov, F. I. Concerning the Effect of an Alternating Electrical Field on the Forming of Electrets-711
Polovikov, F. I. Permanent Polarization of Ebonite -1572
Popov, S. N., see Smolenskii, G. A.-147
Porfir'eva, N. N. The Electrical Conductivity and the Hall Effect in a Polar Semiconductor Taking Into Account the Scattering of Current Carriers on the Optical and Acoustical Lattice Vibrations and on Impurity Ions-794
Potekhina, N. D. Calculation of Relaxation Processes of a Phototriode for Low-Intensity Illumination -1383
Potekhina, N. D., see Ryvkin, S. M.-1258
Pozhela, Yu. K., see Gashka, I. I.-1311
Pruzhinina, V. I., see Aleksandrov, V. V.-1450
Ptitsyn, O. B. Internal Rotation in Polymer Chains and Their Physical Properties. XIV. Dependence of the Intensity of the Vibrational Spectra of Polymers on Stretching-843

Radautsan, S. I., see Goryunova, N. A.-460
Radautsan, S. I., see Goryunova, N. A.-1702
Rashba, É. I. Symmetry of Energy Bands in Crystals of Wurtzite Type. I. Symmetry of Bands Disregarding Spin-Orbit Interaction-368
Ratner, A. M. Luminescence of Impurity Centers. II. -1560
Ratner, A. M. and G. E. Zil'berman. Luminescence of Impurity Centers, I.-1551
Ravich, Yu. I., see Moizhes, B. Ya.-1139
Regel', A. R., see Lange, V. N.-504
Regel', A. R., see Lange, V. N.-507
Reinov, N. M. and A. P. Smirnov. Elastic Limit of Tin and Indium-1169

Reinov, N. M., see Bogoroditskii, N. P.-313
Rekov, A. L., see Aleksandrov, V. V.-1450
Repnikova, M. K., see Bol'shov, V. G.-1618
Romanenko, V. N. Concentration Distribution in a Billet during Zone Equalization-1535
Romankevich, V. N., see Geikhman, D. S.-196
Rotenberg, B. A. The Effect of Pressure on the Piezoelectric Properties of Barium Titanate-1627
Rotenberg, B. A., see Ksendzov, Ya. M.-579
Rumyantseva, E. L., see Pokrovskii, Ya. E.-914
Ryabinin, Yu. N. The Causes Underlying the Increase in Plasticity Due to the Effect of High Hydrostatic Pressure-878
Ryabinin, Yu. N., L. D. Livshits and L. F. Vereshchagin. Regarding the Plasticity of Certain Alloys at High Pressures-429
Ryabtsova, G. P., see Blum, A. L.-692
Ryskin, G. Ya. Diffusion Coefficient Measurement by the Radioactivation Analysis and Isotopic Dilution Methods-870
Ryskin, G. Ya., see Konstantinov, B. P.-881
Ryvkin, S. M., Yu. L. Ivanov, A. A. Grinberg, S. R. Novikov and N. D. Potekhina. A New Longitudinal Magnetoconcentration Effect and Its Employment in Determining the Ratio of Heavy and Light Hole Densities-1258
Ryvkin, S. M. and B. M. Konovalenko. Dependence of the Induced Conductivity in Cadmium Sulfide on the Energy of Exciting Electrons-1607
Ryvkin, S. M., see Arkad'eva, E. N.-1264
Ryvkin, S. M., see Arkad'eva, E. N.-1338
Ryvkin, S. M., see Vitovskii, N. A.-1266
Rzhanov, A. V. On the Correlation Between the Capture Cross-Section Ratio and the Energy-Level Position of Surface Recombination Centers in Germanium -469
Rzhanov, A. V., Yu. F. Novototskii-Vlasov and L. G. Neizvestnyi. The Nature of Surface Recombination Centers in Germanium-1349

Safant'evskii, A. P., see Gurevich, A. G.-1706
Sal'kov, E. A., G. A. Fedorus and M. K. Sheinkman. Regarding the Effect of Surface Treatment on Some Properties of the Photoconductivity of CdS Monocrystals-523
Samoilovich, A. G. and S. L. Korolyuk. Toward the Theory of Elementary Excitations in Atomic Semiconductors-1454
Sandomirskii, V. B. and V. P. Smilga. The Electric Double Layer and the Adhesion of Solids-275
Segal', R. B., see Bronshtein, I. M.-1036
Segal', R. B., see Bronshtein, I. M.-1142
Segal', R. B., see Bronshtein, I. M.-1365
Segal', R. B., see Bronshtein, I. M.-1375
Shalabutov, Yu. K. The Origin of Nonstationary Processes in Aluminum-Oxide Coatings of Radio Tube Heaters-266
Shalyt, S. S., see Timchenko, I. N.-1192
Shapiro, I. P. The Influence of Tl and TlCl Impurities on the Conductivity and Photoconductivity of Selenium-1631
Sheftel', I. T., A. I. Zaslavskii, E. V. Kudina and G. N. Tekster-Proskuryakova. Electrical Properties and Structure of Compound Oxide Semiconductors. I. MnO-CuO-CoO-O_2 System-203
Sheinkman, M. K., see Sal'kov, E. A.-523
Shirokovskii, V. P., see Sokolov, A. V.-317
Shishkin, N. I. and M. P. Vershinina. Dependence of the Electrical Conductivity of Polymers on Temperature-724
Shrednik, V. N. The Problem of the Interpretation of Field Emission Patterns of Metal-Film Cathodes-1037
Shtol'tser, N. V., see Mazurin, O. V.-572
Shul'man, A. R., see Fridrikhov, S. A.-1153
Shul'man, A. R., see Fridrikhov, S. A.-1160
Shul'man, S. G. Concerning the Dependence of the Reverse Current in a Germanium Diode on the Repetition Rate of Voltage Impulses-539
Shuman, V. B., see Pilate, I. M.-354
Shuvalov, Yu. N. The Relationship Between Electrical Conductivity and Electron Density Distribution in Germanium Crystals-187
Sibir, E. E., see Bulyginskii, D. G.-421
Sidyakin, V. G. Electrical Properties of Selenium with Gold Impurity-1073
Sidyakin, V. G., see Geckhman, D. S.-196
Silin, V. P. The Determination of Effective Carrier Masses and Optical Constants of Semiconductors-642
Silina, E. V., see Alferov, Zh. I.-1719
Sinyakov, E. V. and B. K. Chernyi. X-Ray Investigation of the $BaTiO_3$-NiO-ZrO_2 System -315
Sirenko, A. F., see Pines, B. Ya.-247
Sirotko, V. K., see Bogomolov, V. N.-1662
Slezov, V. V., see Lifshits, I. M.-1285
Slobodchikov, S. V., see Nasledov, D. N.-681
Slutsker, A. I., see Zhurkov, S. N.-1060
Slutsker, A. I., see Zhurkov, S. N.-1602
Smetannikova, Yu. S., see Nasledov, D. N.-501
Smilga, V. P., see Sandomirskii, V. B.-275
Smirnov, A. A. and E. A. Tikhonova. Concerning the Theory of the Scattering of X-Rays and Thermal Neutrons by Multicomponent Substitutional Alloys-1277
Smirnov, A. P., see Reinov, N. M.-1169
Smirnov, B. I. Separation of Lattice Distortion and Particle Size Effects in Polycrystals during Harmonic Analysis of a Single X-Ray Line-981

Smirnov, I. A., see Devyatkova, E. D.-555
Smirnov, L. A. The Effect of a Magnetic Field on the Intensity of X-ray Reflections-1698
Smirnov, L. S. and P. A. Glazunov. Bulk Distribution of Lattice Defects in Germanium Crystals Irradiated with Fast Electrons-1262
Smirnov, L. S., see Vavilov, V. S.-1344
Smirnova, T. V., see Mochan, I. V.-1016
Smirnova, T. V., see Mochan, I. V.-1238
Smolenskii, G. A. and A. I. Agranovskaya. Dielectric Polarization of a Number of Complex Compounds -1429
Smolenskii, G. A., A. I. Agranovskaya and V. A. Isupov. New Ferroelectrics of Complex Composition. III. Pb_2MgWO_6, $Pb_3Fe_2WO_9$, and Pb_2FeTaO_6-907
Smolenskii, G. A., A. I. Agranovskaya and S. N. Popov. On the Mechanism of Polarization in Solid Solutions of $Pb_3NiNb_2O_9$-$Pb_3MgNb_2O_9$-147
Smolenskii, G. A., V. A. Isupov and A. I. Agranovskaya. A New Group of Ferroelectrics (with Layered Structure)-149
Smolenskii, G. A., V. A. Isupov and A. I. Agranovskaya. New Ferroelectrics of Complex Composition of the Type $A_I^{3+}(B_I^{3+}B_{II}^{5+})O_6$. I.-150
Smolenskii, G. A., V. A. Isupov and A. I. Agranovskaya. Ferroelectric Properties of Solid Solutions in the System $PbNb_2O_6$-$BaNb_2O_6$-$SrNb_2O_6$-400
Smolenskii, G. A., V. A. Isupov and A. I. Agranovskaya. Dielectric Polarization of Solid Solutions in the System (Ba, Sr) $(Ta, Nb)_2O_6$-909
Smolenskii, G. A., V. A. Isupov and A. I. Agranovskaya. Ferroelectric Substitutional-Defect Solid Solutions -1438
Smolin, M. D., see Frantsevich, I. N.-58
Smushkov, I. V., see Pines, B. Ya.-858
Snitko, O. V. Influence of an External Electric Field on the Surface Recombination and Condenser Photo-emf of n-Type Silicon-898
Sochava, L. S., see Komfel'd, M. I.-1253
Sochava, L. S., see Komfel'd, M. I.-1256
Sogomonyants, Zh. S., see Bolotina, I. A.-439
Sokolov, A. V., G. I. Kharus and V. P. Shirokovskii. On the Double Radiation Refraction of Uniaxial Semiconductor Crystals-317
Sokol'skaya, I. L., see Zubenko, Yu. V.-1691
Solov'eva, L. I., see Vinogradova, K. I.-364
Sorokin, O. V., see Zhuze, V. P.-1302
Stafeev, V. I. Modulation of Diffusion Length as a New Principle of Operation of Semiconductor Devices -763
Stafeev, V. I. On the Problem of the Volt-Ampere Characteristic of a Diode at Ultra-High Injection Levels-769
Starodubov, Ya. D., see Garber, R. I.-1649
Starodubov, Ya. D., see Gindin, I. A.-1642
Stavitskaya, T. S., see Efimova, B. A.-1217
Stavitskaya, T. S., see Vinogradova, M. N.-1224
Stepanov, A. V. Properties of Crystals with Hypothetical Close-Packed Structures-610
Stepanov, A. V., see Kiyavin, O. V.-873
Stepanov, A. V., see Kiyavin, O. V.-1583
Stepanov, A. V., see Lange, T. I.-606
Stil'bans, L. S., see Efimova, V. A.-1217
Stil'bans, L. S., see Vinogradova, M. N.-1224
Strakhov, L. P. Effect of the State of Surface of PbS and CdS on the Contact Potential Difference-527
Strakhov, L. P., see Berlaga, R. Ya.-911
Strelkov, P. G., see Novikova, S. I.-1687
Syrkin, I. N. On a Consequence of Similarity of Magnetization in Mixed Ferrites-1408
Sysoeva, L. M., see Efimova, B. A.-1217
Sysoeva, L. M., see Vinogradova, M. N.-1224

Tarakanova, T. S., see Aleksandrov, V. V.-1450
Tarkhin, D. V., see Kolomiets, B. T.-819
Tekster-Proskuryakova, G. N., see Sheftel', I. T. -203
Teplov, E. A., see Aleksandrov, V. V.-1450
Tikhanova, E. A., see Smirnov, A. A.-1277
Timchenko, I. N. and S. S. Shalyt. The Effect of Entrainment of Charge Carriers by Phonons on the Thermoelectromotive Force of Tellurium-1192
Tissen, K. P. Extraction of Copper and Nickel from Germanium-916
Tissen, K. P., see Kalashnikov, S. G.-491
Tissen, K. P., see Kalashnikov, S. G-1604
Titova, A. G. Growing Monocrystals of Yttrium Ferrite-1714
Trakhtenberg, A. D. and S. M. Fainshtein. Exposure of Dislocations in Germanium and Silicon by Etching-335
Trapeznikova, O. N. Rotation Isomerism in Polymethyl Methacrylate and Its Influence on the Temperature Behavior of Heat Capacity -597
Trapeznikova, O. N., see Novikova, G. E.-1637
Tret'yakov, D. N., see Borshchevskii, A. S.-1360
Tsarenkov, B. V., see Nasledov, D. N.-1346
Tsikin, A. N., see Koikov, S. N.-411
Tsikin, A. N., see Koikov, S. N.-716
Tuchkevich, V. M., see Orlova, N. S.-1491

Ugai, Ya. A. and T. N. Vigutova. A New Intermetallic Semiconductor Compound-1635
Ukhanov, Yu. I. An Investigation of Infrared Absorption by Minority Carriers in Germanium-326
Umkin, K. G., see Ganichev, D. A.-590
Uritskii, Z. L., see Gurevich, L. É.-1188
Ust'yanov, V. L., see Konozenko, I. D.-81

Uvarov, A. I. Effect of the Space Charge of Moving Carriers on the Electrical Breakdown of a Strongly Asymmetric p-n Junction-1336

Vasil'ev, A. M. Microstresses Created in Metals during Plastic Deformation, II.-1587

Vasil'ev, D. M. and L. V. Kozhevnikova. Regarding the Nature of the Yield Range of Pure Iron and Carbon Steel-1207

Vasilev, S. S., see Akishin, A. I.-755

Vavilov, V. S. and K. I. Britsyn. On the Spectral and Temperature Dependences of the Quantum Yield in Silicon-1489

Vavilov, V. S., A. P. Plotnikov and G. V. Zakhvatkin. Infrared Absorption of Silicon of High Resistivity Containing Radiation Defects-894

Vavilov, V. S., L. S. Smirnov and V. M. Patskevich. The Diffusion Length of Charge Carriers in Silicon Photocells-1344

Vavilov, V. S., B. M. Vul, G. V. Galkin and S. A. Fridman. The Problem of Operation of "Atomic" Current Sources with Double Energy Conversion -748

Vavilov, V. S., see V. M. Malovetskaya-1099

Vedula, Yu. S., V. M. Gavrilyuk and N. D. Morgulis. Electronic and Adsorption Properties of a Film of Barium Atoms on a Tungsten Surface Covered by Oxygen-1569

Vereshchagin, L. F., see Ryabinin, Yu. N.-429

Vershinina, M. P., see Shishkin, N. I.-724

Viglin, A. S., and I. P. Kidryavtsev. Determination of the Degree of Perfection of the Texture of Polycrystalline Ferromagnetics. I. General Form of the Function Characterizing the Degree of Perfection of the Crystallographic Texture of Cold-Rolled Steel for the Electrical Industry and the Possibility of Its Experimental Determination-229

Viglin, A. S. and I. P. Kudryavtsev. Determination of the Degree of Perfection of the Texture of Polycrystalline Ferromagnetics. II. Approximation of the Distribution Function p(γ) Characterizing the Degree of Perfection of the Texture of Cold-Rolled Steel for the Electrical Industry-234

Vigutova, T. N., see Ugai, Ya. A.-1635

Vikhorev, G. and V. Naer. Effect of Heat Transfer on the Characteristics of Semiconductor Thermopiles for Refrigerators and Heat Pumps-824

Vinogradova, K. I., V. V. Galavanov, D. N. Nasledov and L. I. Solov'eva. Production of High-Purity Single Crystals of InSb by Zone Melting-364

Vinogradova, M. N., O. A. Golikova, B. A. Efimova, V. A. Kutasov, T. S. Stavitskaya, L. S. Stil'bans and L. M. Sysoeva. Investigation of the Scattering Mechanism of Carriers in Some Semimetals-1224

Vitovskii, N. A. and P. I. Maleev. On the Problem of Measuring the Diffusion Length of Holes in Cadmium Sulfide-901

Vitovskii, N. A., T. V. Mashovets and S. M. Ryvkin. Determination of the Number of Acceptor Levels of Defects Created in Germanium by Irradiation with γ-Rays-1266

Vitrikhovskii, N. I. and I. B. Mizetskaya. Preparation of Mixed CdS-CdSe Monocrystals from the Vapor Phase and Some of Their Properties-358

Vitrikhovskii, N. I. and I. B. Mizetskaya. Preparation of Mixed CdS-CdTe Monocrystals and Some of Their Properties-912

Voitenko, R. M., T. N. Dunaeva and E. A. Kolenko. Crucible-Less Evaporation of Silicon-264

Volchek, B. Z., Study of Capron Swelling by Means of Polarized Infrared Light-728

Vol'kenshtein, M. V., see Bazhenov, N. M.-1079

Vol'kenshtein, M. V., see Bolotina, I. A.-439

Vol'kenshtein, M. V., see Volkova, L. A.-1163

Volkova, L. A. and M. V. Vol'kenshtein. X-Ray Investigation of Swelling of Natural Rubber-1163

Bolkova, L. A., see Bazhenov, N. M.-1079

Volokobinskaya, N. I., V. V. Galavanov and D. N. Nasledov. Electrical and Galvanomagnetic Properties of High-Purity - InSb - 887

Vorob'eva, O. B., see Mostovskii, A. A.-585

Vul, B. M., see Vavilov, V. S.-748

Yarv, E. A., see Alferov, Zh. I.-1721

Yashukova, I. M. On the Problem of Dependence of the Electrical Conductivity of Polycrystalline Cadmium Selenide on the Electric Field Intensity-349

Yashukova, I. M., see Nasledov, D. N.-1087

Yunovich, A. E. Kinetics of the Interchange of Electrons Between the Surface and the Bulk of Germanium-829

Yunovich, A. É. On the Frequency Dependence of the Field Effect in Semiconductors-998

Yurkov, B. Ya. Theory of the Spatial Distribution of Radiation Disturbances of the Crystal Lattice of Silicon when Irradiated with a Multienergetic Electron Beam-633

Zadumkin, S. N. Surface Tension and Heat of Sublimation of Silicon, Germanium and Tin-516

Zakharov, G. M., T. I. Nikitinskaya and A. G. Khapachev. Electrical Conductivity of Fluorite-756

Zakhvatkin, G. V., see Vavilov, V. S.-894

Zarubin, V. V., see Bol'shov, V. G.-416

Zaslavskii, A. I., see Sheftel', I. T.-203

Zeinally, A. Kh., see Kolomiets, B. T.-896

Zel'dovich, Ya. B. Energy Levels in a Distorted Coulomb Field-1497

Zharinov, A. A., see Bol'shov, V. G.-1618

Zhdanova, N. G., S. G. Kalashnikov and A. I. Morozov. The Effect of Temperature on the Recombination Rate of Electrons and Holes at Copper Atoms in Germanium-481

Zhukov, V. P., see Kirvalidze, I. D.-1446

Zhurkov, S. N., V. A. Marikhin and A. I. Slutsker. A Study of the Submicroscopic Porosity of Deformed Polymers-1060

Zhurkov, S. N., A. I. Slutsker and V. A. Marikhin. Determination of the Form of Submicroscopic Cracks in Deformed Polymers-1602

Zhuze, V. P., G. E. Pikus and O. V. Sorokin. Application of Magneto-concentration Effect for Semiconductor Surface Investigation-1302

Zigeniaub, R. A Time-Fluctuation Method Applied to the Theory of Electrical Conductivity-964

Zil'berman, G. E., see Ratner, A. M.-1551

Zingerman, A. S. Regarding the Problem of the Volume of Molten Metal During Electrical Erosion-255

Zobrina, B. N., and L. D. Dudkin. Investigation of the Thermoelectric Properties of $CoSb_3$ with Sn, Te, and Ni Impurities-1668

Zotova, N. V. and D. N. Nasledov. Hall Probes of Indium Arsenide for Measurement of Magnetic-Field Intensities-1544

Zotova, N. V., see Emel'yanenko, O. V.-1711

Zubenko, Yu., V. A., A. I. Klimin and I. L. Sokol'skaya. Current Voltage Characteristics of the Auto-electron Current from Semiconductors-1691

Zuev, K. P. Electrical Conductivity of Cu_2O in Its Stabilization Region in Air (1020-1070°C). I.-111

Zuev, K. P. Electrical Conductivity of Cu_2O During Its Dissociation (1070-1250°C) II.-119

Zuev, K. P. The Dependence of the Electrical Conductivity of Cuprous Oxide on Oxygen Pressure at High Temperatures. III.-703

Zuev, K. P. Thermo-emf of Cuprous Oxide at High Temperature (1000° to 1250°C). IV.-1007

SOVIET PHYSICS – SOLID STATE: SUBJECT INDEX

(Russian Original, Volume 1, 1959, of the Journal Fizika Tverdogo Tela)

Entries will be found under the following headings:

Acoustical Properties
Adhesion
Announcements
Band Structure and Theory
Crystals and Crystal Structure
Deformation
Devices
Dielectrics and Dielectric Phenomena
Diffusion
Dislocations
Doping of Semiconductors
Editorial
Elasticity and Plasticity
Electrical Conductivity
Electrical Contacts
Electrical Properties
Electron Beams
Electron Emission
Electron Microscopy
Electron Tubes
Ferroelectric Materials and Properties
Ferromagnetic Materials and Properties
Field Effect
Films, Thin
Fusion
Gamma Rays
Glass
Hall Effect and Nernst-Effect in Semiconductors
Infrared Absorption
Instrumentation and Methods
Ionization Phenomena
Ions
Kinetic Phenomena
Liquids
Magnetic Properties and Effects
Mass Spectrometry
Mathematical Methods
Metallurgy
Optical Properties
Photoconductivity
Photoelectric Properties and Effects
Photoelectromagnetic Effects
Photomagnetic Effects
Piezoelectric Properties and Effects
Plasma Theory
Polymers
Recombination
Resonance in Semiconductors
Scattering
Semiconductor Metallurgy
Semiconductor Theory
Spectra
Surface Properties
Thermal Properties
Thermoelectric Properties
Vacuum Techniques
X-Rays
Zone Melting

Acoustical Properties

Characteristic Times of Steady-State Electron Processes in Semiconductors, G. M. Guro-1

Conductivity Fluctuation in Amorphous Semiconductors, M. I. Komfel'd and L. S. Sochava -1256

Conductivity Fluctuation in a Solid and a Liquid Antimony Sulfide System, M. I. Komfel'd and L. S. Sochava-1253

Investigation Concerning the Interaction of Holes in p-Germanium with Acoustic Branch Vibrations, L. V. Mochan, Yu. N. Obraztsov and T. V. Smirnova-1239

Spectral Fluctuations in Complex Physical Systems, O. M. Kalinin-1299

Temperature Dependence of the Low-Frequency Fluctuations of Conductivity in Germanium, M. I. Komfel'd and D. N. Mirlin-1709

Ultrahigh Frequency Properties of Yttrium and Lutecium Iron Garnets, A. G. Gurevich, I. E. Gubler, and A. P. Safant'evskii - 1706

Adhesion

Investigation of "Adhesion Levels" in Polycrystalline Sb_2S_3 and Se Monocrystals by the Method of Thermally Activated Currents, E. N. Arkad'eva and S. M. Ryvkin-1264

The Electric Double Layer and the Adhesion of Solids, V. B. Sandomirskii and V. P. Smilga -275

Announcements

Announcement – Transliteration System-155

For the Information of Authors of the Journal of Solid State Physics-154

From the Editorial Board of the Journal "Solid State Physics"-154

Band Structure and Theory

Application of the Equivalent Orbital Method to the Study of Band Structure in $A^{III}B^{V}$ Compounds, A. I. Gubanov and A. A. Nran'yan-956

Impurity Band Theory, V. L. Bonch-Bruevich-1110

Many-Electron Examination of the Hole Zone in Diamond Type Crystals, E. I. Kaplunova-157

Symmetry of Energy Bands in Crystals of Wurtzite Type. I. Symmetry of Bands Disregarding Spin-Orbit Interaction, E. I. Rashba-368

Variation of the Work Function of an Electron from a Metal under the Influence of an Adsorbed Layer of Molecules of Barium Oxide, N. D. Morgulis -1029

Crystals and Crystal Structure

A Study of the Trapping Levels in Sb_2Se_3 Using Thermally Stimulated Current, E. N. Arkad'eva and S. M. Ryvkin-1338

Bulk Distribution of Lattice Defects in Germanium Crystals Irradiated with Fast Electrons, L. S. Smirnov and P. A. Glazunov-1262

Calculation of the Frequency-Distribution Function for Atomic Vibrations in the Crystal Lattice, A. B. Almazov-1690

Concerning a New Type of Crystal Structure of Gutta-Percha, G. E. Novikova and O. N. Trapeznikova-1637

Effect of Deformation on the Hole Energy Spectrum of Germanium and Silicon, G. E. Pikus and G. L. Bir-1502

Ferromagnetic Resonance in Yttrium Ferrite Single Crystals, A. G. Gurevich and L. E. Gubler-1693

Formation of Polastrons in Crystals with the Absorption of Light, E. F. Gross and I. Pastrnyak -466

Growing Monocrystals of Yttrium Ferrite, A. G. Titova-1714

Investigation of the Symmetry of Electron Energy Zones in $CdIn_2Se_4$-Type Crystals, A. I. Gubanov and F. M. Gashimzade-1294

Many-Electron Examination of the Hole Zone in Diamond-Type Crystals, E. I. Kaplunova-157

Noncentral Forces in the Theory of Crystal Lattice Vibrations, B. Ya. Moizhes-1620

On the Double Radiation Refraction of Uniaxial Semiconductors Crystals, A. V. Sokolov, G. I. Kharus, and V. P. Shirokovskii-317

Permittivity and Dielectric Losses of Alkali-Halide Crystals, V. V. Panchenko-1577

Preparation of Mixed CdS - CdSe Monocrystals from the Vapor Phase and Some of Their Properties, N. I. Vitrikhovskii and L. B. Mizetskaya-358

Preparation of Mixed CdS - CdTe Monocrystals and Some of Their Properties, N. I. Vitrikhovskii and L. B. Mizetskaya-912

Properties of Crystals with Hypothetical Close-Packed Structures, A. V. Stepanov-610

Separation of Lattice Distortion and Particle Size Effects in Polycrystals during Harmonic Analysis of a Single X-Ray Line, B. I. Smirnov-981

The Effect of Mechanical Treatment of the Surface on the Fine Structure of Photoconductivity Response in Cadmium Sulfide Crystals, E. F. Gross and B. V. Novikov-1723

The Electrical Properties of Polycrystalline Selenium with Halogen Impurities (Br_2, Cl_2, I_2), V. N. Romankevich, and V. G. Sidyakin-196

The Fine Structure of Photoconductivity Spectral Response Curves for Cadmium Sulfide-Crystals, E. F. Gross and B. V. Novikov-321

The Fine Structure of the Spectral Photosensitivity Curve of Cu_2O Crystals, E. F. Gross and I. Pastrnyak-143

Theory of Splitting of Mica Crystals, M. S. Metsik -991

Theory of the Spatial Distribution of Radiation Disturbances of the Crystal Lattice of Silicon when Irradiated with Multienergetic Electron Beam, B. Ya. Yurkov-633

The Principles of the Brittle Fracture of Single Crystals of Zinc, L. S. Bryukhanova, L. A. Kochanova, and V. I. Likhtman-1329

The Statistical Theory of Bond Energy in Spinel-Type Crystals, A. N. Orlov, and A. N. Men', -174

X-Ray Investigation of the $BaTiO_3$-NiO-ZrO_2 System, E. V. Sinyakov and B. K. Chernyi-315

Deformation

Determination of the Form of Submicroscopic Cracks in Deformed Polymers, S. N. Zhurkov, A. I. Slutsker, and V. A. Marikhin-1602

Effect of Deformation on the Energy Spectrum and the Electrical Properties of Imperfect Germanium and Silicon, G. E. Pikus and G. L. Bir-136

Microstresses Created in Metals during Plastic Deformation, II, A. M. Vasil'ev-1587

The Influence of Deformation on the Electrical Properties of p-Germanium and Silicon, G. E. Pikus and G. L. Bir-1675

Devices

A Method for Making an Ohmic Contact with Silicon, A. F. Gorodetskii, V. G. Mel'nik, and L. G. Mel'nik-153

An Investigation of p-n Junctions at High Current Densities, Yu. K. Barsukov-1518

A Power-Directional Relay Using the Hall Effect, V. N. Bogomolov and V. K. Siretko-1662

A Study of Selenium Rectifiers under Pulse Conditions, D. N. Nasledov and L. M. Yashukova-1087

Bismuth-Silver-Cesium Photocathodes, A. A. Mostovskii, O. B. Vorob'eva, and K. A. Maiskaya -585

"Breakdown" of Alloy-Type Silicon Diodes in the Transmission Direction, Z. I. Alferov and E. A. Yarv-1721

Calculation of Relaxation Processes of a Phototriode for Low-Intensity Illumination, N. D. Potekhina -1383

Calculation of Transient Processes in Transistors, A. A. Grinberg-29

Conductance and the Voltage Transmission Coefficient of a Semiconductor Diode in the Transient State, É. I. Adirovich-1019

Contribution of the State of the Surface on the Breakdown Voltage of Alloy-Type Silicon Diodes, Zh. I. Alferov and É. V. Silina-1719

Effect of Heat Transfer on the Characteristics of Semiconductor Thermopiles for Refrigerators and Heat Pumps, G. Vikhorev and V. Naer-824

Hall Probes of Indium Arsenide for Measurement of Magnetic Field Intensities, N. V. Zotova and D. N. Nasledov-1544

Mechanical Modulators of a Magnetic Field on the Possibilities of Measuring Small Hall Mobilities, V. N. Bogomolov-750

Modulation of Diffusion Length as a New Principle of Operation of Semiconductor Devices, V. I. Stafeev-763

On the Problem of the Volt-Ampere Characteristic of A Diode at Ultrahigh Injection Levels, V. I. Stafeev-769

Spectral Characteristics of GaAs Photocells, D. N. Nasledov and B. V. Tsarenkov-1346

The Diffusion Length of Charge Carriers in Silicon Photocells, V. S. Vavilov, L. S. Smirnov, and V. M. Patskevich-1344

The Efficiency of Refrigeration Thermocouples, E. K. Iordanishvili-595

The Influence of Impurities on the Strong-Effect in Selenium Rectifiers, G. B. Abdullaev, M. G. Aliev, and I. Kh. Geller-1527

The Possibility of Electron Total Energy Distribution Analysis in a Quasi-Spherical Condenser, D. A. Ganichev and K. G. Umkin-590

The Threshold Frequency of a Drift Transistor Taking Into Account the Variation of the Drawing Field and the Mobility of Carriers in the Base, B. Ya. Moizhes-1198

Theory of the Impulse Method of Voltage Separation on a Semiconductor Diode, Yu. K. Barsukov-806

Transient Blocking Processes in Planar Semiconductors Diodes for High Currents, Yu. K. Barsukov-544

Values of the Effective Mass and the Mobility for Thermoelements, A. F. Ioffe-1487

Dielectrics and Dielectric Phenomena

An Investigation of the Dielectric Polarization of Copolymers of Methylmethacrylate and Styrene, G. P. Mikhailov and L. L. Burshtein-574

An Investigation of the Secondary Electron Emission by Alkali-Halide Monocrystals at Low Primary Electron Energies, S. A. Fridrikhov and A. R. Shul'man-1160

An Investigation of the Secondary Electron Emission by Certain Dielectrics at Low Primary Electron Energies, S. A. Fridrikhov and A. R. Shul'man-1153

Concerning the Effect of an Alternating Electrical Field on the Forming of Electrets, F. I. Polovikov-711

Dielectric Polarization and Piezoelectric Properties of Certain Ferroelectric Solid Solutions Based on Sodium Niobate, V. A. Isupov and V. I. Koryakov-849

Dielectric Polarization of a Number of Complex Compounds, G. A. Smolenskii and A. I. Agranovskaya-1429

Dielectric Polarization of Solid Solutions in the System (Ba, Sr) $(Ta, Nb)_2O_6$, G. A. Smolenskii, V. A. Isupov, and A. I. Agranovskaya-909

Longevity of Technical Dielectrics Working in High-Frequency Fields, A. T. Alad'ev-854

More Concerning the Temperature Dependence of the Electric Strength of Ionic Crystalline Dielectrics, V. D. Kucin-406

On an Absolute Method of Measurement of Dielectric Properties of a Solid Using a π-Shaped Resonator, O. V. Karpova-220

On the Dependence on Temperature of the Temperature Coefficient of Dielectric Permeability of $CaZrO_3$ at the Temperature of Liquid Helium, N. P. Bogoroditskii, N. M. Reinov, and L. A. Aleksandrov-313

Permanent Polarization of Ebonite, F. I. Polovikov-1572

Permittivity and Dielectric Losses of Alkali-Halide Crystals, V. V. Panchenko-1577

Solution of the Problem of Thermal Breakdown in Dielectrics for Nonsymmetrical Boundary Conditions, S. N. Kolkov and A. N. Pal'kin -716

The Theory of Thermal Conductivity of Dielectrics, V. L. Gurevich-1351

Diffusion

An Investigation of the Diffusion of Zn and Se in Bi_2Se_3, BiSe and CdSb, A. A. Kuliev and G. B. Abdullaev-545

An X-Ray Investigation of the Kinetics of Reactive Diffusion in the Al-Sb System, B. Ya. Pines and E. F. Chaikovskii-864
Diffusion and Recombination during Measurements of the Drift Mobility, V. N. Dobrovol'skii-655
Diffusion and Solubility of Cadmium in Germanium, V. E. Kosenko-1481
Diffusion Coefficient Measurement by the Radioactivation Analysis and Isotopic Dilution Methods, G. Ya. Ryskin-870
Diffusion of Certain Impurities in Bi_2Se_3 and ZnSb, A. A. Kuliev-1076
Investigation of Growth of an n-Type Semiconductor Layer at the Contact Between Cadmium and Selenium, V. A. Dorin, B. I. Kuznetsov, and D. N. Nasledov-669
On the Calculation of the Diffusion Coefficient in Solids, R. Sh. Malkovich-548
On the Problem of Measuring the Diffusion Length of Holes in Cadmium Sulfide, N. A. Vitovskii and P. I. Maleev-901
Some Results on the Diffusion of Impurities and Their Effect on the Electrical Properties of Gallium Antimonide, B. I. Boltaks and Ya. A. Gutorov-930
The Diffusion Length of Charge Carriers in Silicon Photocells, V. S. Vavilov, L. S. Smirnov and V. M. Patskevich-1344
The Effect of Halogen Impurities on the Thermal Conductivity and Diffusion in Selenium, M. I. Aliev and G. B. Abdullaev-1185
Theory of Coalescence of Solid Solutions, I. M. Lifshits, and V. V. Slezov-1285
The Problem of the Mechanism of Diffusion in Crystals of Chemical Compounds and the Kinetics of Reactive Diffusion, B. Ya. Pines-434
X-Ray Investigation of Heterodiffusion in Cu-Ni Alloys, B. Ya. Pines and I. V. Smushkov-858

Dislocations

Exposure of Dislocations in Germanium and Silicon by Etching, A. D. Trakhtenberg and S. M. Fainshtein-335
Phenomenon of Artificial Generation of Dislocations. VII. Study of Artificial Generation of Dislocations of Circular Bending, T. I. Lange and A. V. Stepanov-606
The Effect of Bismuth on the Density of Dislocations in Monocrystals of Germanium, V. G. Alekseeva and P. G. Eliseev-1195

Doping of Semiconductors

On the Doping of the Semiconductor Compound $CoSb_3$, L. D. Dudkin and N. Kh. Abrikosov-126
The Dependence of the Lifetime of Electrons and Holes in Germanium on Their Concentrations, V. G. Alekseeva, I. V. Karpova, and S. G. Kalashnikov-475

Editorial

The Problems of Solid State Physics-619

Elasticity and Plasticity

Cracks in Transparent Plastics — Their Growth and Structure, M. I. Bessonov and E. V. Kuvshinskii-1321
Determination of the Form of Submicroscopic Cracks Deformed Polymers, S. N. Zhurkov, A. I. Slutsker, and V. A. Marikhin-1602
Elastic Limit of Tin and Indium, N. M. Reinov and A. P. Smirnov-1169
Increase in the Precision of Determining the Longevity of Stretched Bodies under Stress, B. Ya. Pines-238
Influence of the Surface Conditions on Cold-Brittleness, N. N. Davidenkov and I. S. Efimova-1389
Low-Temperature Plastic Failure of Coarse-Grained Iron, I. A. Gindin and Ya. D. Starodubov-1642
Mechanical Properties of Single Twin Interlayers, R. I. Garber-738
Microstresses Created in Metals During Plastic Deformation, II, A. M. Vasil'ev-1587
Regarding the Plasticity of Certain Alloys at High Pressures, Yu. N. Ryabinin, L. D. Livshits, and L. F. Vereshchagin-429
Regarding the Mechanical Criterion of Cold Brittleness, N. N. Davidenkov and I. A. Bozhokina, -1210
Role of Electrical Forces in the Process of Splitting of Mica along Cleavage Planes, B. V. Daryagin and M. S. Metsik-1393
Temperature Dependence of the Mechanical Strength and Life under Load of Metalloceramic Bodies, B. Ya. Pines and A. F. Sirenko-247
The Causes Underlying the Increase in Plasticity Due to the Effect of High Hydrostatic Pressure, Yu. N. Ryabinin-878
The Principles of the Brittle Fracture of Single Crystals of Zinc, I. S. Bryukhanova, L. A. Kochanova and V. I. Likhtman-1329

Electrical Conductivity

A Statistical Theory of the Electrical Conductivity of Semiconductors, I, M. I. Klinger-782
A Study of the Conductivity and the Hall Effect in Solid Solutions of the AlSb-GaSb System, I. I. Burdiyan and B. T. Kolomiets-1067
A Time-Fluctuation Method Applied to the Theory of Electrical Conductivity, R. A. Zigenlaub-964
Concerning the Dependence of the Reverse Current

in a Germanium Diode on the Repetition Rate of Voltage Impulses. S. G. Shul'man-539
Concerning the Statistical Theory of Electrical Conductivity of Semiconductors. III. M. I. Klinger -1269
Conductance and the Voltage Transmission Coefficient of a Semiconductor Diode in the Transient State. É. I. Adirovich-1019
Conductivity and Photoconductivity of Antimony Triselenide. B. T. Kolomiets and V. M. Lyubin and D. V. Tarkhin-819
Deoxidized Selenium and the Dependence of Its Electrical Conductivity on Pressure. II. P. T. Kozyrev-102
Dependence of the Electrical Conductivity of Polymers on Temperature. N. I. Shishkin and M. P. Vershinina-724
Dependence of the Electrical Conductivity of Selenium on Pressure (for Pressures up to 30,000 atm). I. P. T. Kozyrev. -94
Dependence of the Induced Conductivity on the Energy of Electrons in Films of Cadmium Sulfide and Selenide during Bombardment with Slow Electrons. Li Chih-chien-70
Effect of Calcium Oxide on Electrical Conductivity of Glass Containing Two Alkali Oxides. O. V. Mazurin, É. V. Golikova and N. V. Shtol'tser-572
Electrical Conductivity of Certain Titanium and Vanadium Oxides. S. M. Ariya and N. I. Bogdanova-936
Electrical Conductivity of Cu_2O during Dissociation. (1070-1250°C). II. K. P. Zuev-119
Electrical Conductivity of Cu_2O in Its Stabilization Region in Air (1020-1070°C). I. K. P. Zuev.-111
Electrical Conductivity of Fluorite. G. M. Zakharov, T. I. Nikitinskaya, and A. G. Khapachev-756
Electrical Conductivity of Germanium at Low Temperatures. I. A. Kurova and S. G. Kalashnikov. -1353
Investigation of Semiconductor Properties in the Silicon-Manganese System. E. N. Nikitin-304
Long-Period Contact Potential and Conductivity Variations in Germanium Due to the Action of Light and of a Perpendicular Electric Field. M. S. Kosman and L. I. Abkevich-341
Measurement of the Anisotropy of Electrical Conductivity of Semiconductors by the Four-Probe Method. S. V. Airapetyants and M. S. Bresler -134
On the Problem of Dependence of the Electrical Conductivity of Polycrystalline Cadmium Selenide on the Electrical Intensity. I. M. Yashukova-349
On the Problem of Interconnection Between the Electroconductivity and the Ductility of Glasses. R. L. Myuller-309
The Dependence of the Electrical Conductivity of Cuprous Oxide on Oxygen Pressure at High Temperatures. III. K. P. Zuev-703
The Electrical Conductivity and the Hall Effect in a Polar Semiconductor, Taking into Account the Scattering of Current Carriers on the Optical and Acoustical Lattice Vibrations and on Impurity Ions. N. N. Porfir'eva-794
The Influence of Tl and TlCl Impurities on the Conductivity and Photoconductivity of Selenium. L. P. Shapiro-1631
The Relationship Between Electrical Conductivity and Electron Density Distribution in Germanium Crystals. Yu. N. Shuvalov-187
The Resistivity of Spray-Coated Bismuth. M. N. Markov and I. S. Lindstrom-749

Electrical Contacts

Effect of the State of Surface of PbS and CdS on the Contact Potential Difference. L. P. Strakhov-527
Electron Miscoscope Investigation of Electrical Contacts. G. A. Bogdanovskii-1171
The Possibility of Creating Ohmic Contact with Silicon by Rubbing the Metal onto the Semiconductor Using Dry Friction. I. D. Kirvalidze and V. P. Zhukov-1446

Electrical Properties

Certain Electrical Properties of Boro-Silico-Carbides. V. V. Aleksandrov, V. I. Pruzhinina, A. I. Rekov, T. S. Tarakanova and E. A. Teplov-1450
Certain Properties of the InSb-GaSb Alloy. V. I. Ivanov-Omskii and B. T. Kolomiets-512
Effect of Deformation on the Energy Spectrum and the Electrical Properties of Imperfect Germanium and Silicon. G. E. Pikus and G. L. Bir-136
Effect of the Space Charge of Moving Carriers on the Electrical Breakdown of a Strongly Asymmetric p-n Junction. A. I. Uvarov-1336
Electrical and Galvanomagnetic Properties of High Purity InSb. N. I. Volokobinskaya, V. V. Galavanov, and D. N. Nasledov-687
Electrical Properties and Structure of Compound Oxide Semiconductors. I. MnO-CuO-CoO-O_2 System. I. T. Sheftel', A. I. Zaslavskii, E. V. Kurlina, and G. N. Tekster-Proskuryakova-203
Electrical Properties of Alumosilicate, Borosilicate, and Alumoborosilicate Glasses. A. A. Appen and Kuan Fu-hsi-1400
Electrical Properties of Bismuth Alloys. Iv. On the Calculations of Electrical Properties of Binary Alloys of Bismuth. G. A. Ivanov-1461

Electrical Properties of n-Type AlSb. D. N. Nasledov and S. V. Slobodochikov-681
Electrical Properties of p-Type InSb at Low Temperatures. Lien Chih-Ch'ao and D. N. Nasledov--514
Electrical Properties of Selenium with Gold Impurity. V. G. Sidyakin-1073
Electrical Properties of the Intermetallic Compound CdSb with Indium Impurity. L. M. Pilat, V. D. Iskra, and V. B. Shuman-354
Measurement of the Electrical Parameters of a Semiconductor by uhf-Techniques. I. I. Gashka and Yu. K. Pozhela-1311
Peculiarities of the Electrical Properties of Continuous Solid Solutions in the Te-Se and Te-S Systems. V. N. Lange and A. R. Regel'-507
Properties and Structure of Ternary Semiconductors Systems Part VI. Electric and Photoelectric Properties of Films of the Sb_2S_3-Bi_2S_3 System. B. T. Kolomiets and V. M. Lyubin-674
Regarding the Problem of Volume of Molten Metal during Electrical Erosion. A. S. Zingerman-255
Some Results on the Diffusion of Impurities and Their Effect on the Electrical Properties of Gallium Antimonide. B. L. Boltaks and Ya. A. Gutorov -930
The Current Voltage Characteristic of an n-p Junction with Due Regard to the Generation and Recombination of Carriers in the Space Charge Layer. A. D. Chevychelov-1102
The Determination of Effective Carrier Masses and Optical Constants of Semiconductors. V. P. Silin-642
The Effect of Pressure on the Electric Properties of Barium Titanate in Weak Fields. Ya. M. Ksendzov and B. A. Rotenberg-579
The Electrical Properties of Polycrystalline Selenium with Halogen Impurities (Br_2, Cl_2, I_2). D. S. Geikhman, V. N. Romankevich, and V. G. Sidyakin-198
The Influence of Deformation on the Electrical Properties of p-Germanium and Silicon. G. E. Pikus and G. L. Bir-1675
The Problem of Electrical Properties of Gallium Arsenoselenides. D. N. Nasledov and I. A. Feltin'sh-510
The Relationship Between Electrical Conductivity and Electron Density Distribution in Germanium Crystals. Yu. N. Shuvalov-187

Electron Beams

An Investigation of Electron Reflection from Certain Metals. I. M. Bronshtein and R. B. Segal'. -1142
Bulk Distribution of Lattice Defects in Germanium Crystals Irradiated with Fast Electrons. L. S. Smirnov and P. A. Glazunov-1262
Dependence of the Induced Conductivity in Cadmium Sulfide on the Energy of Exciting Electrons. S. M. Ryvkin and B. M. Konovalenko -1607
Dependence of the Induced Conductivity on the Energy of Electrons in Films of Cadmium Sulfide and Selenide during Bombardment with Slow Electrons. Li Chih-chien-70
Investigation of Intercrystalline Energy Barriers in Thin Films of Cadmium Sulfide by Irradiation of the Films with Low-Energy Electrons. Li Chih-chien-75
Investigation of Transmission of 0.5-16 kev Electrons through Collodion and Gold Films. I. R. Kanicheva and V. A. Burtsev-1146
Theory of the Spatial Distribution of Radiation Disturbances of the Crystal Lattice of Silicon when Irradiated with a Multienergetic Electron Beam. B. Ya. Yurkov-633
The Temperature Dependence of the Coefficient of Electron Capture at the Central Level of Copper in Germanium. S. G. Kalashnikov and A. I. Morozov-1182
The Universal Nature of Electron Penetration into Solids. A. F. Makhov-1600
Zone Melting of Silicon with an Electron Beam. V. Gusa, I. Krzhizh, and I. Ladnar-261

Electron Emission

An Investigation of the Secondary Electron Emission by Alkali-Halide Monocrystals at Low Primary Electron Energies. S. A. Fridrikhov and A. R. Shul'man-1160
An Investigation of the Secondary Electron Emission by Certain Dielectrics at Low Primary Electron Energies. S. A. Fridrikhov and A. R. Shul'man -1153
Current-Voltage Characteristics of the Autoelectron Current from Semiconductors. Yu. V. Zubenko, A. I. Klimin, and I. L. Sokol'skaya-1691
Electron Reflection and Secondary Electron Emission of NaCl Films. M. V. Gomoyunova-294
Emission of Electrons from Glass by Helium and Argon Ions. G. M. Batanov and N. N. Petrov -1701
Emission of Secondary Electrons under the Action of Lithium, Boron, and Nitrogen Ions with an Energy up to 10 Mev. A. I. Akishin and S. S. Vasil'ev-755
Emission Properties of Germanium Treated in Cesium Vapor. V. G. Bol'shov, L. N. Dobretsov, A. A. Zharinov, T. V. Krachino and M. K. Repnikova-1618

Inelastic Scattering of Electrons and Secondary-Electron Emission in Certain Metals. I. L. M. Bronshtein and R. B. Segal'-1365
Inelastic Scattering of Electrons and Secondary-Electron Emission in Certain Metals. II. L. M. Bronshtein and R. B. Segal'.-1375
Mass-Spectrometric Study of the Thermionic Emission of Cesium from Different Emitters. G. M. Panchenkov, A. M. Kolchin, and P. A. Akishin--839
Oxide Cathode Emission under Positive-Ion Bombardment. I. A. Abroyan-1699
Secondary Electron Emission from In and Pb in the Solid and the Liquid States. V. G. Bol'shov and V. V. Zarubin-416
Secondary Electron Emission from NaCl Films. M. V. Gomoyunova-283
Secondary Electron Emission from Tellurium. I. M. Bronshtein and R. B. Segal'.-1036
The Possibility of Electron Total Energy Distribution Analysis in a Quasi-Spherical Condenser. D. A. Ganichev and K. G. Umkin-590
The Problem of the Interpretation of Field Emission Patterns of Metal-Film Cathodes. V. N. Shrednik -1037
The Theory of Ion-Electron Emission from Metals. II. S. V. Izmailov-1415
The Theory of Secondary Electron Emission from Metals under the Action of Fast Neutral Atoms. III. S. V. Izmailov-1425

Electron Microscopy

Electron Microscope Investigation of Electrical Contacts. G. A. Bogdanovskii-1171

Electron Tubes

Basic Principles of Aging of Alundum Coatings. S. N. Koikov and A. N. Tsikin-411
Regarding the Nature of the Surface Film of the L-Cathode. D. G. Bulyginskii and E. E. Sibir -421
The Origin of Nonstationary Processes in Aluminum Oxide Coatings of Radio Tube Heaters. Yu. K. Shalabutov-266

Ferromagnetic Materials and Properties

A New Group of Ferroelectrics (with Layered Structure). G. A. Smolenskii, V. A. Isupov, and A. I. Agranovskaya-149
Contribution to the Theory of Ferro- and Antiferroelectrics. V. L. Kiyachkin-1716
Dielectric Polarization and Piezoelectric Properties of Certain Ferroelectric Solid Solutions Based on Sodium Niobate. V. A. Isupov and V. I. Kosyakov-849
Ferroelectric Properties of Lead Metatantalate. V. A. Isupov-216
Ferroelectric Properties of Solid Solutions in the System $PbNb_2O_6$-$BaNb_2O_6$-$SrNb_2O_6$. G. A. Smolenskii, V. A. Isupov, and A. I. Agranovskaya-400
Ferroelectric Substitutional-Defect Solid Solutions. G. A. Smolenskii, V. A. Isupov, and A. I. Agranovskaya-1438
New Ferroelectrics of Complex Composition of the Type $A_2^{3+}(B_I^{2+}B_{II}^{6+})O_9$. I. G. A. Smolenskii, V. A. Isupov, and A. I. Agranovskaya-150
New Ferroelectrics of Complex Composition. III. Pb_3MgWO_9, $Pb_3Fe_2WO_9$, and Pb_3FeTaO_9. G. A. Smolenskii, A. I. Agranovskaya, and V. A. Isupov-907
Nonlinearity of Certain Ferroelectrics at High Frequencies. A. A. Obukhov-1580
On the Mechanism of Polarization in Solid Solutions of $Pb_3NiNb_2O_9$-$Pb_3MgNb_2O_9$. G. A. Smolenskii, A. I. Agranovskaya, and S. N. Popov-147

Ferromagnetic Materials and Properties

Determination of the Degree of Perfection of the Texture of Polycrystalline Ferromagnetics. I. General Form of the Function Characterizing the Degree of Perfection of the Crystallographic Texture of Cold-Rolled Steel for the Electrical Industry and the Possibility of Its Experimental Determination. A. S. Viglin and I. P. Kudryavtsev - 229
Determination of the Degree of Perfection of the Texture of Polycrystalline Ferromagnetics. II. Approximation of the Distribution Function $p(\gamma)$ Characterizing the Degree of Perfection of the Texture of Cold-Rolled Steel for the Electrical Industry. A. S. Viglin and I. P. Kudryavtsev - 234
Ferromagnetic Resonance in Yttrium Ferrite Single Crystals. A. G. Gurevich and L. E. Gubler-1693
On a Consequence of Similarity of Magnetization in Mixed Ferrites. L. N. Syrkin-1408
On the Spin Mechanism of Recombination of Current Carriers in Ferromagnetic Semiconductors. V. L. Bonch-Bruevich-166
Regarding the Arbitrary Reversal of the Magnetic Polarity of Mn-Mg and Ni-Zn Ferrite. V. V. Kobelev and I. I. Nadashkevich-1043
Ultrahigh Frequency Properties of Yttrium and Lutecium Iron Garnets. A. G. Gurevich, L. E. Gubler, and A. P. Safant'evskii - 1706
Safant'evskii-1706

Field Effect

Mechanism of the Increasing Longtime Changes of the Field Effect. V. I. Lyashenko and N. S. Chernaya-799

On the Frequency Dependence of the Field Effect in Semiconductors. A. É. Yunovich-998
On the Problem of Dependence of the Electrical Conductivity of Polycrystalline Cadmium Selenide on the Electrical Intensity. L. M. Yashukova -349
On the Theory of Field Effect. L. V. Boiko-11
The Influence of Impurities on the Strong-Field Effect in Selenium Recitifiers. G. B. Abdullaev, M. G. Aliev, and L. Kh. Geller-1527
The Nature of Relaxation Processes in the Field Effect. V. I. Lyashenko and N. S. Chemaya-921

Films, Thin
Change in the Work Function of Molybdenum on Depoaition of Thin Sodium and Cesium Films. V. N. Lepeshinskaya and V. N. Belogurov-1656
Dependence of the Induced Conductivity on the Energy of Electrons in Films of Cadmium Sulfide during Bombardment with Slow Electrons. Li Chih-chien-70
Electron Reflection and Secondary Electron Emission of NaCl Films. M. V. Gomoyunova-294
Investigation of Intercrystalline Barriers in Thin Films of Cadmium Sulfide by Irradiation of the Films with Low-Energy Electrons. Li Chih-chien -75
More on the Structure of Thin Layers Obtained on Evaporation of Antimonous Indium in a Vacuum. G. A. Kurov-151
Secondary Electron Emission from NaCl Films. M. V. Gomoyunova-283

Fusion
On the Question of Fusion of Ge and Si. T. A. Kontorova-1611

Glass
Effect of Calcium Oxide on Electrical Conductivity of Glass Containing Two Alkali Oxides. O. V. Mazurin, E. V. Mazurin, É. V. Golkova, and N. V. Shtol'tser-572
Electrical Properties of Alumosilicate, Borosilicate, and Alumoborosilicate Glasses. A. A. Appen and Kuan Fu-hsi-1400
Emission of Electrons from Glass by Helium and Argon Ions. G. M. Batanov and N. N. Petrov -1701
On the Impurity Conduction in Liquid and Amorphous Semiconductors. I. Z. Fisher-171
On the Problem of Interconnection Between the Electroconductivity and the Ductility of Glasses. R. L. Myuller-309

Hall Effect and Nernst Effect in Semiconductors
A Study of the Conductivity and the Hall Effect in Solid Solutions of the AlSb-GaSb System. I. I. Burdiyan and B. T. Kolomiets-1067
Concerning Methods of Measuring the Nernst Effect. I. V. Mochan and T. V. Smirnova-1016
Dependence of the Hall Effect on Pressure in p-Germanium of 50 ohm·cm Resistivity. A. I. Likhter-815
Determination of the Number of Acceptor Levels of Defects Created in Germanium by Irradiation with γ-Rays. N. A. Vitovskii, T. V. Mashovets, and S. M. Ryvkin-1266
Displacement of Atoms in a Solid by the Action of γ-Rays. V. V. Galavanov-390
Magnetothermal Nernst-Ettingshausen Effects in Indium Arsenide. O. V. Emel'yanenko, N. V. Zotova, and D. N. Nasledov-1711
Measurement of the Dependence of the Hall Effect in n-Type Germanium on Pressure for Pressures up to 10,000 kg/cm². A. I. Likhter and T. S. D'yakonova-86
Mechanical Modulators of a Magnetic Field on the Possibilities of Measuring Small Hall Mobilities. V. N. Bogomolov-750
The Electrical Conductivity and the Hall Effect in a Polar Semiconductor, Taking in Account the Scattering of Current Carriers on the Optical and Acoustical Lattice Vibrations and on Impurity Ions N. N. Porfir'eva-794
The Nernst-Ettingshausen Effect in Gallium Arsenide. O. V. Emelyanenko and D. N. Nasledov.-902

Infrared Absorption
An Investigation of Infrared Absorption by Minority Carriers in Germanium. Yu. I. Ukhanov-326
Infrared Absorption of Silicon of High Resistivity Containing Radiation Defects. V. S. Vavilov, A. F. Plotnikov, and G. V. Zakhvatkin-894

Instrumentation and Methods
A Method for Making an Ohmic Contact with Silicon. A. F. Gorodetskii, V. G. Mel'nik and I. G. Mel'nik-153
An Experimental Investigation of a Thermoelectric Evaporation Apparatus. V. A. Naer-1092
A Possible Method of Determining the Ratio of Capture Cross Sections of Recombination Centers in Semiconductors. S. G. Kalashnikov and K. K. Konstantinesku-1613
Certain Improvements in the Technique of Preparation of Pure Silicon by Thermal Decomposition of Silane. Ya. E. Pokrovskii, S. I. Kleshchevnikova, and E. I. Rumyantseva-914
Concerning Methods of Measuring the Nernst Effect. I. V. Mochan and T. V. Smirnova-1016
Crucible-Less Evaporation of Silicon. R. M. Voitenko, T. N. Dunaeva, and E. A. Kolenko-264
Crystalline CdS Gamma-Radiation Receivers. I. D. Konozenko and V. I. Ust'yanov-81

Determination of the Ratio of the Electron and Hole Capture Cross Sections of Copper Atoms in Germanium, K. Konstantinesku-1616
Diffusion Coefficient Measurement by the Radioactivation Analysis and Isotopic Dilution Methods, G. Ya. Ryskin-870
Flotation Method for Measuring the Compressibility Coefficients of Solids and Liquids, B. P. Konstantinov, Yu. B. Baikov, and G. Ya. Ryskin-881
Homogenization of Alloys of the InAs-In_2Se_3 System by Annealing under Pressure, N. A. Goryunova, S. I. Radautsan, and V. L. Deryabina-460
Measurement of the Anisotropy of Electrical Conductivity of Semiconductors by the Four-Probe Method, S. V. Airapetyants and M. S. Bresler -134
Measurement of the Electrical Parameters of a Semiconductor by uhf-Techniques, I. I. Gashka and Yu. K. Pozhela-1311
On an Absolute Method of Measurement of Dielectric Properties of a Solid Using a π-Shaped Resonator, O. V. Karpova-220
Preparation of a Photovoltaic Cell from InSb with an Alloyed n-p Junction, V. V. Galvanov and N. A. Erokhina-1096
Preparation of Lead Sulfide Photoresistances by Chemical Deposition, R. Ya. Berlaga, F. T. Novik, and L. P. Strakhov-911
Preparation of Mixed CdS·CdSe Monocrystals from the Vapor Phase and Some of Their Properties, N. L. Vitrikhovskii and L. B. Mizetskaya-358
Preparation of Mixed CdS·CdTe Monocrystals and Some of Their Properties, N. L. Vitrikhovskii and L. B. Mizetskaya-912
The Reflection Coefficient of Antireflection Coated Surfaces of Silicon Photocells, V. M. Malovetskaya, V. S. Vavilov, and G. N. Galkin-1099

Ionization Phenomena

Impact Ionization in an n-p Junction, G. V. Gordeev-772
On the Spectral and Temperature Dependence of the Quantum Yield in Silicon, V. S. Vavilov and K. I. Britsyn-1489
The Problem of Operation of "Atomic" Current Sources with Double Energy Conversion, V. S. Vavilov, B. M. Vul, G. V. Galkin, and S. A. Fridman-748

Ions

Entrainment of Ions by Electrons in Semiconductors, V. B. Piks-1212
On the Mechanism of the Mobility of Ions in Metals, V. B. Piks-14
The Sputtering Effect of Positive Ions with Energies up to 25 kev in a Small Electromagnetic Separator, M. L. Guseva-1410
The Theory of Ion-Electron Emission from Metals, II, S. V. Izmailov-1415
The Theory of Secondary Electron Emission from Metals under the Action of Fast Neutral Atoms, III, S. V. Izmailov-1425

Kinetic Phenomena

An X-Ray Investigation of the Kinetics of Reactive Diffusion in the Al-Sb System, B. Ya. Pines and E. F. Chaikovskii-864
Electrokinetic Effects and the Viscosity of Electrons in Liquid Metals, II, V. B. Piks and G. E. Pikus-1049
Electrokinetic Effects in Liquid Metals, G. E. Pikus and V. B. Piks-972
Kinetics of the Interchange of Electrons Between the Surface and the Bulk of Germanium, A. E. Yunovich-829
The Statistical Theory of Kinetic Phenomena, II, M. I. Klinger-1122

Liquids

On the Impurity Conduction in Liquid and Amorphous Semiconductors, L. Z. Fisher-171

Magnetic Properties and Effects

A New Longitudinal Magnetoconcentration Effect and Its Employment in Determining the Ratio of Heavy and Light Hole Densities, S. M. Ryvkin, Yu. L. Ivanov, A. A. Grinberg, S. R. Novikov, and N. D. Potekhina-1258
Application of Magnetoconcentration Effect for Semiconductor Surface Investigation, V. P. Zhuze, G. E. Pikus, and O. V. Sorokin-1302
Dependence of the Hall Constant on the Magnetic Field Intensity in Silicon, N. S. Orlova and V. M. Tuchkevich-1491
Electrical and Galvanomagnetic Properties of High-Purity InSb, N. I. Volokobinskaya, V. V. Galavanov, and D. N. Nasledov-687
The Effect of a Magnetic Field on the Intensity of X-Ray Reflections, L. A. Smirnov-1698

Mass Spectrometry

Mass-Spectrometric Determination of the Amount and Composition of Gases Adsorbed on the Surface of Germanium and Silicon Monocrystals, V. M. Kozlovskaya-940
Mass-Spectrometric Study of the Thermionic Emission of Cesium from Different Emitters, G. M. Panchenkov, A. M. Kolchin, and P. A. Akishin-839

Mathematical Methods

Approximate Wave Functions for Valence Electrons of Certain Atoms, A. I. Gubanov-182
A Statistical Theory of the Electrical Conductivity of Semiconductors, I, M. I. Klinger--782

Calculation of the Frequency-Distribution Function for Atomic Vibrations in the Crystal Lattice. A. B. Almazov-1690
Calculation of Transient Processes in Transistors. A. A. Grinberg-29
Concerning the Statistical Theory of Electrical Conductivity of Semiconductors. III. M. I. Klinger-1269
The Statistical Theory of Bond Energy in Spinel-Type Crystals. A. N. Orlov and A. N. Men'-174
The Statistical Theory of Kinetic Phenomena. II. M. I. Klinger-1122

Metallurgy

Additional Evidence Concerning Solid Solutions in the AlSb-GaSb System. I. I. Burdiyan-1246
An Investigation of Mechanical Properties of Metals at the Liquid Helium Temperature. O. V. Klyavin and A. V. Stepanov-1583
A Study of the State of Silver and Gold Local Levels in Germanium. K. D. Glinchuk, E. G. Miselyuk, and N. N. Fortunatova-1234
Electrokinetic Effects and the Viscosity of Electrons in Liquid Metals. II. V. B. Fiks and G. E. Pikus -1049
Electrokinetic Effects in Liquid Metals. G. E. Pikus and V. B. Fiks-972
Extraction of Copper and Nickel from Germanium. K. P. Tissen-916
Influence of Heat-Treatment and Cold Working on Internal Friction in Metals. Yu. K. Pavstov-448
Low-Temperature Plastic Failure of Coarse-Grained Iron. I. A. Gindin and Ya. D. Starodubov-1642
Nature of the Flow Region in Metals. N. N. Davidenkov and É. I. Brainin-1357
On the Mechanism of the Mobility of Ions in Metals. V. B. Fiks-14
Regarding the Nature of the Yield Range of Pure Iron and Carbon Steel. D. M. Vasil'ev and L. V. Kozhevnikova-1207
Regarding the Problem of the Volume of Molten Metal during Electrical Erosion. A. S. Zingerman -255
Some Quantitative Relationships of the Process of the Donor-Acceptor Reaction in Metal Alloys. I. N. Frantsevich, D. F. Kalinovich, I. I. Kovenskii, and M. D. Smolin-58
Temperature Dependence of the Mechanical Strength and Life under Load of Metalloceramic Bodies. B. Ya. Pines and A. F. Sirenko-247
The Mechanical Properties of Solids, Particularly Metals, at Temperature of 4.2°K and Below. II. The Fracture of Coarse Crystal Aluminum (99.996%) and of the High Strength Aluminum Alloy B-95. O. V. Klyavin and A. V. Stepanov -873
Thermal Hardening of Twin Interlayers in Iron. R. I. Garber, I. A. Gindin, and Ya. D. Starodubov-1649

Optical Properties

Calculation of the Index of Refraction Near the Fundamental Absorption Edge in Atomic Semiconductors. L. I. Korovin-1202
Certain Properties of the InSb-GaSb Alloys. V. I. Ivanov-Omskii and B. T. Kolomiets -512
Formation of Polarons in Crystals with the Absorption of Light. E. F. Gross and I. Pastmyak-486
Luminescence of Impurity Centers. I. A. M. Ratner and G. E. Zel'berman-1551
Luminescence of Impurity Centers. II. A. M. Ratner-1560
On the Double Radiation Refraction of Uniaxial Semiconductor Crystals. A. V. Sokolov, G. I. Kharus, and V. P. Shirokovskii-317
Optical Spectrum of Polaron Formation in Cuprous Oxide Crystals. E. F. Gross and I. Pastmyak-891
Study of Capron Swelling by Means of Polarized Infrared Light. B. Z. Volchek-728
Temperature Dependence of the Light Absorption Coefficient in Cuprous Oxide Crystals in the Visible Region of the Spectrum. I. Pastmyak-889
The Determination of Effective Carrier Masses and Optical Constants of Semiconductors. V. P. Silin-642
The Influence of Vitrification of Polymers on Their Optical Activity. I. A. Bolotina, N. M. Bazhenov, M. V. Vol'kenshtein, and Zh. S. Sogomonyants-439
The Photoelastic Effect in Polymethylmethacrylate, Polybutylmethacrylate, and Polyvinylacetate. N. M. Bazhenov, M. I. Bykov, L. A. Volkova, and M. V. Vol'kenshtein--1079
The Reflection Coefficient of Antireflection Coated Surfaces of Silicon Photocells. V. M. Malovetskaya, V. S. Vavilov, and G. N. Galkin-1099
The Reflective Power of Cu-Sn Alloys Obtained by Simultaneous Condensation of Component Vapors on a Base Layer. L. Grigorescu and M. Nakhman-732
The Theory of Impurity Absorption of Light in Covalent Crystals. V. M. Buimistrov and M. E. Deigen-1341
The Theory of Optical Properties of Electron Semiconductors in the Infrared Region of the Spectrum. V. I. Cherepanov-947

Photoconductivity
Conductivity and Photoconductivity of Antimony Triselenide. B. T. Kolomiets, V. M. Lyubin and D. V. Tarkhin-819
Influence of Surface Treatment on the Structure of the Curve of Spectral Distribution of Photoconductivity in Crystals of Cuprous Oxide. E. F. Gross and I. Pastmyak-758
On the Possibility of Detection of Excitons in Germanium and Silicon. B. Ya. Moizhes and Yu. I. Ravich-1139
On the Theory of Photoconductivity and Photoelectromagnetic Effect when Trapping Levels are Present. A. G. Mironov-471
Photoconductivity of Sb_2Se_3. B. T. Kolomiets and A. Kh. Zeinally-896
Regarding the Effect of Surface Treatment on Some Properties of the Photoconductivity of CdS Monocrystals. E. A. Sal'kov, G. A. Fedorus, and M. K. Sheinkman-523
Relaxation Characteristics of Semiconductors Photoresistors and Photoelements. F. A. Gisina-1314
The Effect of Mechanical Treatment of the Surface on the Fine Structure of Photoconductivity Response in Cadmium Sulfide Crystals. E. F. Gross and B. V. Novikov-1723
The Effect of Surface Treatment on the Spectral Photoconductivity Response of p-Type Silicon. V. A. Petrusevich-1549
The Effect of Surface Recombination on the Photoconductivity of Semiconductors. L. G. Bir-62
The Fine Structure of Photoconductivity Spectral Response Curves for Cadmium Sulfide Crystals. E. F. Gross and B. V. Novikov-321
The Fine Structure of the Spectral Photosensitivity Curve of Cu_2O Crystals. E. F. Gross and I. Pastmyak-143
The Influence of Tl and TlCl Impurities on the Conductivity and Photoconductivity of Selenium. I. P. Shapiro-1631
Photoelectric Properties and Effects
Displacement of Atoms in a Solid by the Action of γ-Rays. V. V. Galavanov-390
Emission Properties of Germanium Treated in Cesium Vapor. V. G. Bol'shov, L. N. Dobretsov, A. A. Zharinov, T. V. Krachino, and M. K. Repnikova -1618
Photoelectric Properties of Semiconductors Rectifying Elements in X-Rays. I. G. Nekrashevich-532
Properties and Structure of Ternary Semiconductor Systems Part VI. Electric and Photoelectric Properties of Films of the Sb_2S_3-Bi_2S_3 Systems. B. T. Kolomiets and V. M. Lyubin-674
Photoelectromagnetic Effects
Concerning the Relation Between the Polarization and the Magnetic Field Intensity in the Exciton Absorption Region. A. F. Lubchenko -646
On the Theory of Photoconductivity and Photoelectromagnetic Effect when Trapping Levels are Present. A. G. Mironov-471
Influence of an External Electric Field on the Surface Recombination and Condensator Photo-emf of n-Type Silicon. O. V. Snitko -898
The Application of the Photomagnetoelectric Effect to the Measurement of Surface Recombination Velocity. T. I. Galkina-194
The Theory of Longwave Absorption by Crystals. L. É. Gurevich and Z. I. Uritskii-1188
Photomagnetic Effects
Elimation of Edge Effect during the Measurement of the Photomagnetic emf in Semiconductors. B. Ya. Moizhes-1135
Photomagnetic Effect in Single Crystals of n-Type Indium Antimonide. D. N. Nasledov and Yu. S. Smetannikova-501
Piezoelectric Properties and Effects
Dielectric Polarization and Piezoelectric Properties of Certain Ferroelectric Solid Solutions Based on Sodium Niobate. V. A. Isupov and V. I. Kosyakov-849
Stability of Piezoelectric Effect in Compressed Barium Titanate. M. M. Kitaigorodskii-570
The Depolarization Charge of Barium Titanate and Its Connection with the Piezoelectric Effect. F. I. Kolomoitsev and I. A. Izhak -1639
The Effect of Pressure on the Piezoelectric Properties of Barium Titanate. B. A. Rotenberg -1627
Plasma Theory
A More Precise Theory of Plasma Recombination. V. L. Bonch-Bruevich-984
The Theory of Electron Plasma in Semiconductors. V. L. Bonch-Bruevich and Sh. M. Kogan-1118
Polymers
An Investigation of the Dielectric Polarization of Copolymers of Methylmethacrylate and Styrene. G. P. Mikhailov and L. L. Burshtein -574
A Study of the Submicroscopic Porosity of Deformed Polymers. S. N. Zhurkov, V. Z. Marikhin, and A. I. Slutsker-1060
Cracks in Transparent Plastics – Their Growth and Structure. M. I. Bessonov and E. V. Kuvshinskii-1321
Dependence of the Electrical Conductivity of Polymers on Temperature. N. L. Shishkin and M. P. Vershinina-724

Determination of the Form of Submicroscopic Cracks in Deformed Polymers. S. N. Zhurkov, A. L. Slutsker, and V. A. Marikhin-1602
Internal Rotation in Polymer Chains and Their Physical Properties. XIV. Dependence of the Intensity of the Vibrational Spectra of Polymers on Stretching. O. B. Ptitsyn-843
Rotation Isomerism in Polymethyl Methacrylate and Its Influence on the Temperature Behavior of Heat Capacity. O. N. Trapeznikova-597
Study of Capron Swelling by Means of Polarized Infrared Light. B. Z. Volchek-728
The Influence of Vitrification of Polymers on Their Optical Activity. I. A. Bolotina, N. M. Bazhenov, M. V. Vol'kenshtein, and Zh. S. Sogomonyants -439
The Photoelastic Effect in Polymethylmethacrylate, Polybutylmethacrylate, and Polyvinylacetate. N. M. Bazhenov, M. I. Bykov, L. A. Volkova, and M. V. Vol'kenshtein-1079
Thermal Expansion of Fluoroplast (Ftoroplast IV) Between −190 and 325°C. L. E. Leksina and S. I. Novikova-453
X-Ray Investigation of Swelling of Natural Rubber. L. A. Volkova and M. V. Vol'kenshtein-1163

Recombination

A More Precise Theory of Plasma Recombination. V. L. Bonch-Bruevich-984
A Possible Method of Determining the Ratio of Capture Cross Sections of Recombination Centers in Semiconductors. S. G. Kalashnikov and K. K. Konstantinesku-1613
Determination of Capture Cross Sections in the Case of Recombination on Multicharged Centers. Yu. A. Kontsevoi-1177
Determination of the Ratio of the Electron and Hole Capture Cross Sections of Copper Atoms in Germanium. K. Konstantinesku-1616
Diffusion and Recombination during Measurements of the Drift Mobility. V. N. Dobrovol'skii-655
Extraction of Nickel from Germanium. A. K. Mednikov-1704
Influence of an External Electric Field on the Surface Recombination and Condensator Photo-emf of n-Type Silicon. O. V. Snitko-898
On the Correlation Between the Capture Cross-Section Ratio and the Energy Level Position of Surface Recombination Centers in Germanium. A. V. Rzhanov-469
On the Spin Mechanism of Recombination of Current Carriers in Ferromagnetic Semiconductors. V. L. Bonch-Bruevich-166
Recombination of Electrons and Holes at Nickel Atoms in Germanium. S. G. Kalashnikov and K. P. Tissen-491
The Application of the Photomagnetoelectric Effect to the Measurement of Surface Recombination Velocity. T. I. Galkina-194
The Cross Section of Capture of Electrons and Holes by Atoms of Nickel in Germanium. S. G. Kalashnikov and K. P. Tissen-1604
The Current Voltage Characteristic of an n-p Junction with Due Regard to the Generation and Recombination of Carriers in the Space Charge Layer. A. D. Chevychelov-1102
The Dependence of the Lifetime of Electrons and Holes in Germanium on Their Concentrations. V. G. Alekseeva, I. V. Karpova, and S. G. Kalashnikov-475
The Effect of Surface Recombination on the Photoconductivity of Semiconductors. L. G. Bir-62
The Effect of Temperature on the Recombination Rate of Electrons and Holes at Copper Atoms in Germanium. N. G. Zhdanova, S. G. Kalashnikov, and A. L. Morozov-481
The Nature of Surface Recombination Centers in Germanium. A. V. Rzhanov, Yu. F. Novototskii-Vlasov, and I. G. Neizvestnyi -1349
The Problem of Operation of "Atomic" Current Sources with Double Energy Conversion. V. S. Vavilov, B. M. Vul, G. V. Galkin and S. A. Fridman-748
The Recombination of Charge Carriers in Semiconductors for a Great Concentration of Traps. V. D. Egorov-753
The Temperature Dependence of the Coefficient of Electron Capture at the Central Level of Copper in Germanium. S. G. Kalashnikov and A. L. Morozov-1182

Resonance in Semiconductors

Cyclotron Resonance in Semiconductors with Complex Equipotential Surfaces. Yu. A. Firsov-42
Remark on the Article "Cyclotron Resonance in Semiconductors with Complex Equipotential Surfaces." Yu. A. Firsov-474

Scattering

Carrier Scattering Mechanism in Some Solid Solutions Based on Lead and Bismuth Tellurides. B. A. Efimova, T. S. Stavitskaya, L. S. Stil'bans, and L. M. Sysoeva-1217
Concerning the Theory of the Scattering of X-Rays and Thermal Neutrons by Multicomponent Substitutional Alloys. A. A. Smirnov and E. A. Tikhonova-1277
Elastic Scattering of a Mott Exciton on an Na^+ Ion in the Born Approximation. Z. S. Kachlishvili-1597

Inelastic Scattering of Electrons and Secondary-Electron Emission in Certain Metals. I. L. M. Bronshtein and R. B. Segal'.-1365
Inelastic Scattering of Electrons and Secondary-Electron Emission in Certain Metals. II. L. M. Bronshtein and R. B. Segal'-1375
Investigation Concerning the Interaction of Holes in p-Germanium with Acoustic Branch Vibrations. I. V. Mochan, Yu. N. Obraztsov, and T. V. Smirnova-1239
Investigation of the Scattering Mechanism of Carriers in Some Semimetals. M. N. Vinogradova, O. A. Golikova, B. A. Efimova, V. A. Kutasov, T. S. Stavitskaya, L. S. Stil'bans, and L. M. Sysoeva -1224
Theory of Two-Phonon Scattering of Conductivity Electrons in Atomic Crystals. A. I. Ansel'm, and I. G. Lang-621
The Problem of the Scattering of Charge Carriers at Impurity Centers. Yu. V. Gulyaev-381
The Universal Nature of Electron Penetration into Solids. A. F. Makhov-1600

Semiconductor Metallurgy

An Energy Barrier Between Slow Surface Traps and the Bulk of Germanium and Silicon. I. I. Abkevich-1532
A New Intermetallic Semiconductor Compound. Ya. A. Ugai and T. N. Vigutova-1635
A New Semiconducting Compound in the In-Sb-Te System. N. A. Goryunova, S. I. Radautsan, and G. A. Kiosse-1702
Application of Vibrational Mixing to the Synthesis of Semiconductor Materials. A. S. Borshchevskii and D. N. Tret'yakov-1360
Application of Magnetoconcentration Effect for Semiconductor Surface Investigation. V. P. Zhuze, G. E. Pikus, and O. V. Sorokin-1302
A Study of the State of Silver and Gold Local Levels in Germanium. K. D. Glinchuk, E. G. Miselyuk, and N. N. Fortunatova-1234
Certain Anomalies in the Density and the Microhardness Functions of Te-Se and Te-S Alloys. V. N. Lange and A. R. Regel'-504
Effect of the State of Surface of PbS and CdS on the Contact Potential Difference. L. P. Strakhov--527
Electrical Properties and Structure of Compound Oxide Semiconductors. I. MnO-CuO-CoO-O_2 System. I. T. Shtefel', A. I. Zaslavskii, E. V. Kurilina, and G. N. Tekster-Proskuryakova-203
Electrical Properties of Selenium with Gold Impurity. V. G. Sidyakin-1073
Equilibrium Solid Solutions in the InSb-GaSb System. V. I. Ivanov-Omskii and B. T. Kolomiets-834
Extraction of Nickel from Germanium. A. K. Mednikov-1704
Investigation of Growth of an n-Type Semiconductor Layer at the Contact Between Cadmium and Selenium. V. A. Dorin, B. I. Kuznetsov, and D. N. Nasledov-689
Long-Period Contact Potential and Conductivity Variations in Germanium Due to the Action of Light and of a Perpendicular Electric Field. M. S. Kosman and I. I. Abkevich-341
On Solid Solutions in the ZnSe-GaAs System. N. A. Goryunova and N. N. Fedorova-307
Regarding the Effect of Surface Treatment of Some Properties of the Photoconductivity of CdS Monocrystals. E. A. Sal'kov, G. A. Fedorus, and M. K. Sheinkman-523
Regarding the Nature of the Surface Film of the L-Cathode. D. G. Bulyginskii and E. E. Sibir-421
Restoration of the Parameters of Germanium Subjected to Thermal Treatment by Annealing in Vapors of Antimony and Arsenic. N. I. Chetverikov-498
Semiconductor Properties of Aluminum Selenide. V. P. Mushinskii-483
Surface Tension and Heat of Sublimation of Silicon, Germanium, and Tin. S. N. Zadumkin-516

Semiconductor Theory

Disintegration of an Exciton by Phonons in Atomic Semiconductors. A. A. Lipnik-661
Effect of Deformation on the Hole Energy Spectrum of Germanium and Silicon. G. E. Pikus and G. L. Bir-1502
Energy Levels in a Distorted Coulomb Field. Ya. B. Zel'dovich-1497
Some Properties of Relaxation Functions and Kinetic Coefficients. M. I. Klinger-613
Theory of Two-Phonon Scattering of Conductivity Electrons in Atomic Crystals. A. I. Ansel'm and I. G. Lang-621
The Theory of the Mobility of Electrons in Semiconductors. I. I. Boiko-518
Toward the Theory of Elementary Excitations in Atomic Semiconductors. A. G. Samoilovich and S. L. Korolyuk-1454
Two Mechanisms for the Motion of Free Charges. A. F. Ioffe-139

Spectra

Effect of Deformation on the Energy Spectrum and the Electrical Properties of Imperfect Germanium and Silicon. G. E. Pikus and G. L. Bir-136
Internal Rotation in Polymer Chains and Their Physical Properties. XIV. Dependence of the Intensity of the Vibrational Spectra of Polymers on Stretching. O. B. Pritsyn-843

Spectral Characteristics of GaAs Photocells. D. N. Nasledov and B. V. Tsarenkov-1346
Spectral Fluctuations in Complex Physical Systems. O. M. Kalinin-1299
The Energy Spectrum of Holes in Bi_2Te_3. E. K. Kudinov-1696

Surface Properties
Contribution of the State of the Surface on the Breakdown Voltage of Alloy-Type Silicon Diodes. Zh. I. Alferov and É. V. Silina-1719
Electronic and Adsorption Properties of a Film of Barium Atoms on a Tungsten Surface Covered by Oxygen. Yu. S. Vedula, V. M. Gavrilyuk, and N. D. Morgulis-1569
Influence of the Surface Conditions on Cold Brittleness. N. N. Davidenkov and I. S. Efimova-1389
Investigation of "Fast" Surface States of Germanium. V. G. Litovchenko and V. I. Lyashenko-1470
Mass-Spectrometric Determination of the Amount and Composition of Gases Adsorbed on the Surface of Germanium and Silicon Monocrystals. V. M. Kozlovskaya-940

Thermal Properties
Effect of Heat Transfer on the Characteristics of Semiconductors Thermopiles for Refrigerators and Heat Pumps. G. Vikhorev and V. Naer-824
Investigation of Semiconductor Properties in the Silicon-Manganese System. E. N. Nikitin-304
On the Influence of Halogens on the Thermoconductivity of Selenium. A. A. Bashshaliev-311
Rotation Isomerism in Polymethyl Methacrylate and Its Influence on the Temperature Behavior of Heat Capacity. O. N. Trapeznikova-597
Solution of the Problem of Thermal Breakdown in Dielectrics for Nonsymmetrical Boundary Conditions. S. N. Kolkov and A. N. Pal'kin-716
Temperature Dependence of the Light-Absorption Coefficient in Cuprous Oxide Crystals in the Visible Region of the Spectrum. I. Pastnyak-888
Temperature Dependence of the Low-Frequency Fluctuations of Conductivity in Germanium. M. I. Komfel'd and D. N. Mirlin-1709
The Effect of Halogen Impurities on the Thermal Conductivity and Diffusion in Selenium. M. I. Aliev and G. V. Abdullaev-1185
The Effect of Tin and Bismuth Impurities on the Thermal Conductivity of Selenium. N. A. Aliev and N. I. Ibragimov-1525
Thermal Conductivity of Tellurium Containing Different Concentrations of Additional Elements in the Temperature Range 80-480°K. E. D. Devyatkova, B. Ya. Moizhes, and L. A. Smirnov-555
Thermal Expansion of Fluoroplast (Ftoroplast IV) Between 190 and 325°C. I. E. Leksina and S. I. Novikova-453
Thermal Expansion of Silicon at Low Temperatures. S. I. Novikova and P. G. Strelkov-1687
Thermal Hardening of Twin Interlayers in Iron. I. A. Gindin and Ya. D. Starodubov-1649
The Specific Heats of a Number of Semiconductors. P. V. Gul'tyaev and A. V. Petrov-330
The Theory of Thermal Conductivity of Dielectrics. V. L. Gurevich-1351
Two Mechanisms for the Conduction of Heat. A. F. Ioffe-141

Thermoelectric Properties
Investigation of the Thermoelectric Properties of $CoSb_3$ with Sn, Te, and Ni Impurities. B. N. Zobrina and L. D. Dudkin-1668
On the Problem of Measuring Thermoelectric Properties of Semiconductors. M. A. Kaganov, I. S. Lisker, and L. G. Mushkin-905
The Effect of Entrainment of Charge Carriers by Phonons on the Thermoelectromotive Force of Tellurium. I. N. Timchenko and S. S. Shalyt-1192
Thermoelectric Properties of Gallium Antimonide (GaSb). A. I. Blum-696
The Thermoelectric Properties of InSb and GaSb Compounds during Melting and in the Liquid State. A. I. Blum and G. P. Ryabtsova-692
Thermo-emf of Cuprous Oxide at High Temperature (1000° to 1250°C). IV. K. P. Zuev-1007

Vacuum Techniques
More on the Structure of Thin Layers Obtained on Evaporation of Antimonous Indium in a Vacuum. G. A. Kurov-151

X-Rays
An X-Ray Investigation if the Kinetics of Reactive Diffusion in the Al-Sb System. B. Ya. Pines and E. F. Chaikovskii-864
Concerning the Theory of the Scattering of X-Rays and Thermal Neutrons by Multicomponent Substitutional Alloys. A. A. Smirnov and E. E. Tikhonova-1277
Photoelectric Properties of Semiconductor Recitifying Elements in X-Rays. I. G. Nekrashevich-532
Separation of Lattice Distortion and Particle-Size Effects in Polycrystals. During Harmonic Analysis of a Single X-Ray Line. B. I. Smirnov-981
The Effect of a Magnetic Field on the Intensity of X-Ray Reflections. L. A. Smirnov-1698
X-Ray Investigation of Heterodiffusion in Cu-Ni Alloys. B. Ya. Pines and I. V. Smuchkov-858
X-Ray Investigation of Swelling of Natural Rubber. L. A. Volkova and M. V. Vol'kenshtein-1163

X-Ray Investigation of the $BaTiO_3$-NiO · ZrO_2 System. E. V. Sinyakov and B. K. Chemyi-315

Zone Melting

Concentration Distribution in a Billet during Zone Equalization. V. N. Romanenko-1535

Production of High-Purity Single Crystals of InSb by Zone Melting. K. L. Vinogradova, V. V. Galavanov, D. N. Nasledov, and L. I. Solov'eva -364

Zone Melting of Silicon with an Electron Beam. V. Gusa, I. Krzhizh, and I. Ladnar-261